ILLINOIS MEDICAL JOURNAL

THE OFFICIAL ORGAN OF

THE ILLINOIS STATE MEDICAL SOCIETY

Vol. XLVI | OAK PARK, ILL., NOVEMBER, 1924 | No. 5

ILLINOIS MEDICAL JOURNAL

Published monthly by the Illinois State Medical Society under the direction of the Publication Committee of the Council.

GENERAL OFFICERS, 1924-1925

PRESIDENT.....L. C. TAYLOR, Springfield
PRESIDENT-ELECT.....J. C. KRAFFT, Chicago
FIRST VICE-PRESIDENT.....J. R. NEAL, Springfield
SECOND VICE-PRESIDENT.....FRANK MAPLE, Chicago
TREASURER.....A. J. MARKLEY, Belvidere
SECRETARY.....HAROLD M. CAMP, Monmouth
(Ex-Officio Clerk of the Council)

THE COUNCIL

	Term Expires
District 1—David B. Penniman, Rockford	1926
District 2—E. E. Perisho, Streator	1926
District 3—S. J. McNeill, Chicago	1926
R. R. Ferguson, Chicago	1927
John S. Nagle, Chicago	1925
District 4—Wm. D. Chapman, Silvis	1927
District 5—Charles S. Nelson, Springfield	1925
District 6—Henry P. Beirne, Quincy	1927
District 7—L. O. Frech, Decatur	1925
District 8—G. B. Dudley, Charleston	1926
District 9—Andy Hall, Mt. Vernon	1927

S. J. McNeill, Chicago, *Chairman.*

PUBLICATION COMMITTEE

J. W. Van Derslice, *Secretary,* 155 N. Ridgeland Avenue, Oak Park.

EDITOR

DR. CHARLES J. WHALEN.....25 E. Washington St., Chicago

GENERAL COUNSEL

ROBERT J. FOLONIE.....39 S. LaSalle Street, Chicago

MEDICO-LEGAL COMMITTEE

	Term Expires
C. B. KING, *Chairman,* 4100 W. Madison St., Chicago	1925
R. D. HAWTHORNE, Monticello	1927
J. R. BALLINGER, Chicago	1927
C. A. HERCULES, Chicago Heights	1926
C. G. FARNUM, Peoria, *Secretary*	1926
W. F. GRINSTEAD, Cairo	1925

State Society will pay no bills for legal services except those contracted by the Committee. Notify the Chairman at once. Do not employ attorneys.

Send original articles and all communicatoins relating to advertisements to Dr. Charles J. Whalen, Editor, 6221 Kenmore Avenue, Chicago.

Membership correspondence to Dr. Harold M. Camp, Monmouth, Ill.

Society proceedings and news items and changes in the mailing list to Dr. Henry G. Ohls, Managing Editor, 7636 Bosworth Avenue, Chicago.

Contributors will submit all copy for publication typewritten on standard size paper and double spaced. Copy not complying with this rule will be returned, if convenient.

Subscription price of this Journal to persons not members of the Illinois State Medical Society is $3.00 per year, in advance, postage prepaid, for the United States, Cuba, Porto Rico, Philippine Islands, Hawaiian Islands and Mexico. $3.50 per year for all foreign countries included in the postal union. Canada, $3.25. Single current copies, 35 cents. Back numbers, after three months from date of publication, 50 cents.

Editorial

DEFECTS OF PRESENT-DAY MEDICAL EDUCATION

WHAT THE MEDICAL PROFESSION NEEDS IS MORE DOCTORS TO TAKE CARE OF GENERAL ILLNESSES AND FEWER SPECIALISTS FOR THE MORE INFREQUENT AFFLICTIONS

The flaw in the crystal is obvious where current medical education is concerned. Topheavy with specialists, and comparatively devoid of "general men," the entire system of medical education is due to shatter itself into fragments unless immediate action is taken against this inevitable catastrophe.

In the American passion for perfection, for continuous advancement and for spectacular discovery, the arbiters of medical education have lost sight of the real intent and content of medical science. Our educators are going along with rapt eyes fixed upon the distant stars of fresh achievement. They are blind to the perils of the pathway. While they seek new fields in the "just beyond," their duties are neglected and their basic strength undermined by two consequent evils.

The second evil, though the greater, is the outgrowth of the first. Medicine is always pulling itself up by the bootstraps, but in this instance medicine is actually destroying its facility for public service through its very devotion to progress. For the first of these evils is the lack of the old-fashioned family doctor. He was the man of a thousand remedies for trivial ailments. These, checked at the start, failed to develop into the terrible maladies that make necessary the high-priced, laboratory and marble-halled, hospital-bound specialist.

The second evil is the amazing growth of charlatan cults that, superseding the old-fash-

ioned doctor in the public confidence, are rapidly making such invalids out of thousands of innocent people that soon the specialist himself will not be able to help one of these abused folk.

The people will lose all confidence in the doctor if the doctor continues to specialize himself out of the common plane.

While the new-fashioned doctor has been perfecting his education so meticulously that often he himself finds his latest knowledge stale before he has had time to put it into practice beneficial to any individual member of the human race, the old-fashioned, general doctor has been passing steadily away into the realms beyond.

The present supposed shortage of doctors is at once a monument to these men, and an indictment of modern methods.

Mere text-book and clinical information are only part of a physician's professional skill. A doctor to heal best must have some practical knowledge of human nature. He must know something about the mechanisms he intends to repair as well as of the ways and means of effecting repairs. No matter what the science seemingly proves or disproves, a man is made up of soul as well as of body, and the mysterious interlocking of these component parts has so far defied all surgical clinics. People as well as people's bodies must be familiar to the capable physician.

Osler said cannily: "It is more important to know *what kind of a patient* has pneumonia than it is to know *what kind* of pneumonia the patient has."

This fact is lost sight of in many wealthy institutions. Quoting Dr. Edward H. Ochsner, "Some years ago a very learned and scientific gentleman became professor of anatomy in one of the medical schools of this city. The first six weeks of his course was devoted to a modelling of the femur in clay.

At this rate it would require an expert mathematician to figure out how long it would take this student to get around to learning much about the rest of the body, if he had six weeks to spend on a femur in mud. "Dust to dust and ashes to ashes" would get the most of us before we had made the rounds of the body, on that basis.

Educating specialists is wonderful work. The trouble with medical education today is that we are educating specialists and not turning out doctors. Sick people need the best of care. In any instance the best itself can always be bettered. When it comes to a question of giving a few of the people unnecessary attendance and all of the people competent attendance, any honest fool will admit that it is humanity and not socialism to say that a certain amount of medical skill should be available in all communities, and to all people.

To keep high the standard of medicine and of medical education and the ethics of the profession is the aim of every honest physician. But to see the profession of medicine wither and die because the roots are neglected in order to admire beautiful blossoms, is against all morality, humanity and science.

While faulty distribution as to location is one of the causes for criticism, the main trouble is that the trend of medical schools is to produce specialists rather than doctors.

A man with a felon deosn't need a specialist, but can get along very well with a little simple medical attention that will cure him and give him a feeling that the doctor is his close friend instead of a strange financial harpy. As it is now in hundreds of communities the felon is cobbled at in the endeavor to find a cure in some home remedy, nature itself, or some patent nostrum. The consequence is that when this same man gets something more severe the matter with him than the felon, he either sticks to his nostrums or gets gobbled up by a cult. He has fallen away from the habit of the family doctor—medicine's real men.

Instead of the study of medicine being a hothouse of erudition, it should be an exposition and practice of the healing arts.

What the colleges want and what the country and profession needs is the study of medicine so arranged that a man of intelligence, of moral principle, and of talent for medicine, can learn how to make sick people well, and how to teach well people how to keep so. There is now too much detail, too much preparation, too much red tape and an absolute lack of balance. What the public wants urgently is a replenishment of the ranks of old-fashioned doctors. Until this is done the study of medicine will continue to dig its own grave.

"AND RELIEF" AS A CLAUSE IN THE PROPOSED NATIONAL EDUCATIONAL BILL IS THE NIGGER IN THE WOODPILE

THIS "AND RELIEF" TAIL ON THE PROPOSED NEW FEDERAL "DEPARTMENT OF EDUCATION AND RELIEF" IS JUST THE SAME OLD STATE MEDICINE JOKER IN FRESH GUISE. LIKE ALL THE REST OF THIS SOCIALISTIC MISCHIEF FROM THE SCOTCHED SHEPPARD-TOWNER ON, THIS TAIL, TOO, IS PREPARED TO WAG THE DOG, IF THE PEOPLE WILL STAND FOR IT

Compulsory Health Insurance, Maternity Benefits, Birth Control and all the rest of the allied tommyrot is not by any means placed where it can do no more mischief to the public health welfare and the rights of American citizens.

Quite the contrary! In this propored new federal "Department of Education and Relief" the socialistic havoc of the Federal Aid is up and at the world again, happy and beaming. The trailer, "And Relief" does the work. It places upon the smirking ophidian head of "Federal Aid" a nice, new and very disguising hat.

The proposal was first to include in the various departments of the cabinet a Department of Education. This is the latest bloc appeal to impose upon the Constitution so wisely drafted by our forbears, the finger prints of the individual politicians.

Of this first proposal President Coolidge, when addressing the National Education Association at its July, 1924, convention, said:

"Pending before Congress is the report of a committee which proposes to establish a "Department of Education and Relief" to be presided over by a Cabinet Officer. BEARING IN MIND THAT THIS DOES NOT MEAN ANY INTERFERENCE WITH THE LOCAL CONTROL AND DIGNITY, but is rather an attempt to recognize the importance of educational effort, such proposal has my hearty endorsement and support."

Now anyone who looks closely at the provisions of this bill will observe that its autocratic and bureaucratic ends affect the public and the medical profession caring for that public as much as did the maternity legislation.

When the Bill is presented to the approaching Congress, if any one titlts that phrase *"And Relief"* sufficiently to learn what is covered by this blanket meaning, he will find "and relief" covers a mass of soviet principles grafted upon a democracy that has flourished because it has been free from socialism.

This movement for a Department of Education seems to have started during the war, when every class that lacked a contributory finger in the Washington pie, hastened to thrust in at least one thumb, with the resultant awkwardness that has disturbed public equilibrium and public taxes ever since. Casual tracing of the movement brings the recollection that it started with teachers who by their labor affiliations during the war were classed then as agitators, and who seemed to be actuated primarily by a desire for better salaries. It must be remembered, too, that the first political party to include a Federal Department of Education, as a platform plank, was the Socialist Party, in 1908.

Those citizens who have been sick to the very soul at having government books of record thrown open so that any curiosity keen neighbor may discover the state of his household and business finances will have more to groan about if such measures win out as this "Department of Education and Relief."

It is well to bear in mind, too, that the "goldfish" emitting the loudest complaints about this publicity baring income details are not the men of affairs but the average citizen of monumental personal pride, jealous of his individual privacy and earning only a moderate income. Perhaps, now that he has been given a taste of what socialistic supervision and dogmatic legislation do to the innermost recesses of the individual, as an ethical proposition, and to individual rights, this same citizen may vote a little bit differently on welfare legislation.

America as a young democracy laid a solid foundation stone in the insistence that individual rights shall be safeguarded, personal liberty not transcended when the practice of that liberty interferes with no one else, and that education shall be considered as sacred a right as is religious thought. Recognized as a "matter of public policy," placed beyond the reach of private agencies, yet this "education of children," *while a public interest was held by the early patriots to be simultaneously extra-governmental.*

This canny distinction was furthered by the way in which the founders of the government planned to secure the revenue for the maintenance of public education. It was deemed wise, and in the public interest to have a universal tax and to have these moneys handled separately from the moneys of the government.

Even where its financial sustenance was concerned this matter of the education of children was lifted out of the hands of professional politicians in so far as the founders of the government were able to make it so. With almost uncanny vision and admirable forthrightness the men who gave us this government limited its functions closely to the transaction of the public business with individual citizens and with other governments. Being red-blooded men of action those early patriots were not at all worried as to how much they could bleed from the public purse to destroy the very structure that they and their sons had fought and, sometimes, died to build.

This present generation seems to have forgotten the primal purpose of the President's Cabinet. Except as a matter of citizenship, these departments have no direct bearing upon the practice of medicine, or the theories of religion. Matters such as those do not lend themselves readily to secular publications except when they are broadened to include specific matters of professional interest. At the outset the Cabinet included *Federal Agencies* only—State, War, Treasury, Navy, Postal, and Legal Services, supplemented in 1849 by the Department of the Interior, a development of physical growth. But since 1889, when the Department of Agriculture was created as a sop for an expecial trade bloc, the insanity has proceeded. These bloc efforts have disturbed a work of beautiful balance. They might better have been bureaus, similar to those used now for the advisory capacities of public health and of education. The precedent has been set. Coxey's Army will never die so long as political blocs and political henchmen can argue for a place in the cabinet at the expense of public welfare and the public purse. In this country a trade specialist seeks not "a place in the sun" but "a place in the cabinet."

While the N. E. A. and the cohorts thereof might prefer to have a Department of Education for themselves, minus any clutter of questions of public health or social welfare, yet the educators know that to carry their point they will need extraneous backing. And they will take this backing where they can get it.

From the Department of Labor, sundered in 1913 from the combined Department of Commerce and Labor, that had been a bloc victory of 1903, these educators seem likely to get their best support. And Labor seems keyed up to swallowing whole any dose of socialistic messing. Doubtless if this keeps on the President's chief advisor will be the head of the Janitors' bloc.

If a Department of Education Bill—with the "and relief" left out is really a necessity one might turn to a fairly cleanly drawn measure of this nature presented at the Sixty-seventh Congress, caption "S. B. 253 (Owen)."

This at least is free from Federal Aid iniquity doped up as "Sob stuff" and ladelled out generously to those "who having eyes, see not, and having ears hear not," and who by their incomptencies sell for less than the proverbial mess of pottage, not only their birthright of American citizenship but the birthrights of generations yet to come.

A PHYSICIAN ACCOMPANIES LA SALLE WHEN HE DISCOVERED THE MOUTH OF THE MISSISSIPPI, 1682

In the search for data for the History of Medical Practice in Illinois, the committee has come into possession of much information that should incite a thrill for medical ears.

We publish below three interesting items pertaining to early medical practice in Illinois, the one item furnished us by Dr. Lucius H. Zeuch of Chicago shows how a Dr. Jean Michel accompanied La Salle when he discovered the mouth of the Mississippi; two items furnished us by Dr. G. C. Otrich of Belleville, Illinois, one of these shows the court record of the first quarantine in Illinois, 1799, the other a court record of a suit for medical services, 1782.

A PHYSICIAN ACCOMPANIES LA SALLE ON HIS GREATEST EXPEDITION

After Joliet and Marquette returned from their memorable trip of discovery of the Illinois country, and the glowing account Joliet gave of the riches of the country, there was no other topic of conversation among the inhabitants of

Quebec of greater moment than the unfulfilled portion of the enterprise, the discovery of the mouth of the Mississippi. These intrepid explorers in their frail canoes, without sufficient numbers to militantly combat hostile Indians, depended for their progress upon the Calumet or peace pipe and the gentle ministrations of the good priest with his zeal for the Catholic Faith and "God," whom it so faithfully served. But hostile Indians whose ancestors had had dealings with the treacherous white men, who had invaded the lower Mississippi one hundred years before, left traditions which the Red men had learned to respect as well as the knowledge of guns and gunpowder, which they had learned to use with telling effect in their encounters with the Spaniards, whose inordinate love of gold had left an indelible enmity in the minds of the savages, so that further progress than the Arkansas river mouth was deemed imprudent by these first French explorers toward the mouth of the Mississippi. La Salle, then in the Canadian country, was commissioned to make a survey of the new country with the possibility of exploitation of its resources to replenish the empty coffers that Louis, the Grand, with his profligate courtiers, had so completely drained. With this in mind, several unsuccessful attempts were made to colonize the new country, a matter thoroughly covered in standard histories.

The expedition, however, that concerns us in our history of medicine in Illinois, which gave that marvelous man, La Salle, his greatest fame was his successful descent to the mouth of the Mississippi. Unlike his predecessors in the quest, he thoroughly planned for any exigency. He had his trusted lieutenant, Tonty, a warrior of tried ability, as his aid, who preceded him to Chicago to prepare for the journey late in 1681. When La Salle arrived in January of 1682, he found sledges to transport his equipment and men through the Chicago Portage, Desplaines and Illinois rivers, to the open waters of Lake Peoria; from which point navigation was open. With his own party, he had a priest, mechanics, a notary and, above all, Jean Michel, a surgeon, whose services and medicines were absolutely indispensible in such an undertaking to combat the scourges of the wilderness, Malarial Fever, Yellow Fever, and the injuries inflicted by the savages in warfare. Little is known about this surgeon, but we can well assume that he was probably influenced by the accounts of the new country of his contemporary, Dr. Louis Moreau, who preceded him into the Illinois country and who had returned to Quebec and married there in 1678. Dr. Michel had married Mene Sara in 1676, which obligation evidently did not deter him from joining the La Salle expedition, for few in those days could resist the lure of the wilderness and its adventures. Then again let us not attribute his desire to leave home wholly from his own personal choice, for the early surgeons were hard pressed for money in the naked country, where patients were few and often without means. The subsidy the Crown offered for medical services was the lure that made many of the pioneer physicians leave the settled communities, with their comparative comforts, for the hardships of military service. More compensation in the form of a thrill undoubtedly was his, for he was one of the illustrious fourteen white men who reached the mouth of the Mississippi and witnessed the adding of a vast empire to his King, when La Salle, amid impressive ceremonies, planted a column and with a Cross, bearing the arms of France and the following inscription:

LOUIS, THE GRAND
KING OF FRANCE AND NAVARRE
April 9, 1682

La Salle's foresight in taking surgeon Michel with him on this expedition stood him in good turn, for on the return voyage up the Mississippi, he was seized with a serious illness and detained in consequence at the Chickasaw Bluffs (Memphis), where a fort had been established on the downward passage. Tonty was dispatched to Canada to report the glad tidings of the success of the expedition, but La Salle remained until fall under the care of Dr. Michel. The party then wended their way northward, La Salle remaining in Mackinac while his surgeon went on home to Canada, where we might assume he practiced his profession until his death in 1691.

FIRST QUARANTINE IN ILLINOIS

Minutes of the Court of Quarter Sessions of Cahokia, July 2, 1799:

Ordered in order to keep off the plague of the Small Pox that now rage on the Spanish side

that anyone crossing (the river) to be fined $6.00 for the first offense, $12.00 and ten days' imprisonment for the second offense and remain in prison till he or they shall pay the final fine. Goods brought from the Spanish side will be confiscated.

EARLY COURT RECORD OF A SUIT FOR MEDICAL SERVICE

At a Court, January 10, 1782.

President, George Blin, Raphael Gagne,
J. Bte, LaCroix, Pierre Grandmont,
Bte. Dubuque, Joseph Cesirre.

Isaac Levy, Plaintiff, vs. Michel Buteau, Defendant.

The plaintiff sues the defendant, saying that he treated the defendant for sickness for the sum of four hundred livres and after some time the defendant assured him that he no longer felt any symptoms of his sickness. He ceased caring for him and afterwards, when he asked for his pay, the defendant refused, saying that he had not cured him entirely. Bte. Dumay, after having taken oath to tell the truth concerning the agreement between the plaintiff and the defendant, affirmed that the plaintiff was bound to cure perfectly the defendant and that he heard the defendant say that he was not cured, but only relieved. The defendant says that the plaintiff was obliged to cure him perfectly and that he was not and is not cured; that he only felt some relief from the first treatment of the plaintiff.

Augustin Angers, after having made oath to tell the truth according to his knowledge, says that the defendant was intending to go to Kaskaskia to be attended, and that he had said that the plaintiff had stopped him, saying that he was capable of curing him; and that he (Angers) had advised him to put himself under the care of the plaintiff; that sometime afterwards, when asked the defendant about the sickness, he answered that he was getting along very well; but later the defendant had told him that he was sick and that the plaintiff had ceased attending him. The defendant declared on oath that he had not known any women from the time the plaintiff began taking care of him up to the present time.

The Court condemned the plaintiff to continue attending the defendant until he should be cured, on condition that the defendant acts according to orders and does nothing that can counteract the medicines of the plaintiff, under penalty of paying the sum demanded and of being abandoned by him.

The Court condemned the defendant to pay the sum of one hundred and sixteen livres fifteen sols, a bill for which in accordance with his current account the plaintiff has produced.

The Court condemned the plaintiff to pay all the costs of justice.

The above are examples of hundreds of other interesting steps in the growth of the Illinois country portraying doctors as the "trail-blazer"—telling of their work, their want, their heroism and courage down to the present day. Everything from the earliest period of medical practice in Illinois will be set down in the history of medical practice of Illinois, now being prepared by the committee on medical history under the sponsorship of the Illinois State Medical Society.

Sold on subscription. Order your copy now. Surely you will want to have in your medical library this written record of the work of your forebears.

Below will be found order blank for Medical History.

SUBSCRIBE NOW FOR THE HISTORY OF MEDICAL PRACTICE IN THE STATE OF ILLINOIS

Sold on Subscription

Authorized by Illinois State Medical Society.

To The Committee on Medical History,
Illinois State Medical Society,
c/o Cashier,
The Bowmanville National Bank,
4806 North Western Ave., Chicago, Ill.

PLEASE send.....copies of "THE HISTORY OF MEDICAL PRACTICE IN ILLINOIS" by {Express / Parcel Post} for which I will pay at the rate of Ten Dollars ($10.00) per copy, to address below. Enclosed and payable to The Illinois State Medical Society History Committee is {Draft, Express Order / Cheques, Money Order} for.....

Dollars ($.....).

Signed .....

Street No. .....

City or Town.....

State .....

Progressive physicians, medical schools, hospitals, libraries, reference and statistical bureaus, and institutions of learning generally will want a copy of this volume as a concise, dependable authority for daily use. Unique, comprehensive, and a long wanted unit of historical value, this chronicle of Illinois progress is a record of work done for humanity by the profession. These annals are a bequest of value for posterity; an heirloom for the children, relatives and friends of former and present members of the Illinois State Medical Society.

ORDER YOUR COPY TODAY! DON'T LOSE OUT ON THIS!

HURRY ON DATA FOR MEDICAL HISTORY OF ILLINOIS

The time is rapidly approaching when data intended for the Medical History will have to be in the hands of the committee if it is to become a part of this tribute to the medical profession of Illinois.

A salient point is to be born in mind is that if this history is to be worthy of the work it aims to commemorate, it must be constructed coherently from the medical history of every community in the state. This means that every physician should pause long enough to supply the committee with what data he or she possesses or with information where such data may be procured. Sifting chaff from grain with chopsticks is ultra-easy in comparison with winnowing out the archives of the past. Annals of those sturdy pioneers are only partially found in libraries and court houses. By far the greater portion of desirable memoribilia is apt to be locked in garret chests and faded family albums and scrap books. Will every member of the Illinois State Medical Society make it a point to see that his community is in some way informed that this work is in progress and request for the history committee the loan of documents, pictures, or other mementoes that may be of interest or assistance?

MEDICAL HISTORY COMMITTEE

O. B. Will, M. D., Peoria.
Charles B. Johnson, M. D., Champaign.
Carl E. Black, M. D., Jacksonville.
George A. Dicus, M. D., Streator.
Geo. H. Weaver, M. D., Chicago.
James H. Hutton, M. D., Chicago.
Lucius H. Zeuch, M. D., Chicago.
Charles J. Whalen, M. D., Chicago, Chairman.

OFFICE OF THE COMMITTEE
6244 N. Campbell Ave., Chicago, Ill.

THE MORALS OF THE GIRLS OF THIS GENERATION—LIQUOR AND LAXITY BLAMED FOR LOW STANDARD OF GIRLS

Mrs. Fanny Hamilton, head of the woman's division of the Madison, Wisconsin, Police Department, in her report to the Police and Fire Commission recently said:

"In virtually nine cases out of every ten where delinquent girls were investigated, it proved to be a case of either complete lack of morals, or exceedingly low standard. The girl of this generation, as far as her code of ethics is concerned, is pitifully lacking, and while I believe with other authorities that it is often caused by a lack of proper home training, I blame to some extent the present age of 'jazz, drinking and general laxity.'

"The majority of the cases that come to my attention are girls of immature years, but very often I have under investigation girls whose ages run from 18 to 21. It is these that are the most deplorable, for while a younger girl can be taught the sense of right and wrong, as a rule the older one cannot. She is more set and immovable in her ways."

Mrs. Hamilton further states that the work done by the woman's division is growing every month and she attributes this increase to the startling lack of morals in the present day girl.

"It is a condition not of immoral girls, but decidedly unmoral ones."

HOW MUCH MORE INTELLIGENT ARE AVERAGE BUSINESS MEN THAN AVERAGE DOCTORS

Fred Kelly in "The Nation's Business," says:

Every time I chance to go to a hospital to visit a sick friend I'm impressed with how much more intelligent are average business men than average doctors. One measuring stick by which I reach this conclusion is that of vanity, which, in the long run, is, I believe, in inverse ratio to intelligence.

Medical ethics still require that a trained

nurse remain standing so long as a doctor is in the room, even thongh she may have been up all night on a difficult case. Doctors assure me that it isn't to satisfy medical vanity, but is solely for discipline, morale and the good of the service. Why then, if standing at attention is good for trained nurses, wouldn't it be good for stenographers, accountants and filing clerks? Why not have all the clerks in an office rise respectfully every time the boss comes in? The answer is that business men are too level-headed to tolerate such nonsense.

Army intelligence tests made by the psychological division of the medical corps showed that medical officers, with the sole exception of horse doctors, were decidedly the least intelligent class of army officers. No wonder medical men feel the need of respectful attention by nurses! Incidentally, the highest intelligence shown in the army tests was by engineers—and today much business and industrial activity has become an engineering job.

SOVIET GOVERNMENT CARE OF CHILDREN A FAILURE AS THE SHEPPARD-TOWNER PRINCIPLE IS OPERATED IN RUSSIA

(According to press dispatches sent out by the Chicago Tribune Company). Because after placing their children in soviet homes in the colonies, parents make frequent visits, bringing presents and caressing their children, the commissariat of education in the homes hereafter will confiscate all of the presents distributed among the children and will not permit the parents to see their children more than twice a month and, when possible, will prevent the parents displaying affection toward the children. According to the decree, "much dissatisfaction is caused among the children by parents who fail to sever connections with their children after giving them to the care of the soviet government."

MEMORIAL TO DOCTOR McMICHAEL

Ground has been broken for a new building at the Palmer Tuberculosis Sanatorium, at Springfield, to house thirty-two additional patients. With the group of buildings finished early in the year, this new building will complete the plant which is in many ways unique. The new building will be known as the McMichael Pavilion in memory of the late Dr. Orville W. McMichael of Chicago, and in this building will be set aside a room for the free use of any tuberculosis nurse in Illinois needing sanatorium care. This room is permanently endowed by Dr. George Thomas Palmer, in memory of his mother, Ellen Robertson, by a sum of $30,000 provided by will.

DR. ORVILLE WINTHROP McMICHAEL

With the death of our fellow member, Dr. Orville Winthrop McMichael, Oct. 2, 1924, this Society not only lost a member, but a friend; one who was ever constant in his friendship and always ready to aid his brother members with a cheerful willingness whenever asked for advice or scientific discussion.

Dr. McMichael was a soldier, scholar, teacher and above all a man beloved by every one with whom he had personal or professional contact.

Born February 11, 1867, Near Hamilton, Ontario, Canada, where his boyhood was spent, he attended the schools of that time and prepared for the University of Toronto at Woodstock College. He graduated from the University of Toronto in 1891 with the degree of B.A. He attended Hahnemann Medical College in Chicago from which he graduated in 1890. Following graduation he began his practice in Wheeler, Indiana.

At the time of the discovery of gold in the Klondyke, he joined a party and for two years sought the gold from mother earth's bosom. After much self-denial, hardships and shipwrecks as a prospector and government agent, he returned to his former home in Indiana and resumed practice, also opening an office at Ontario and State streets, and dividing his time between the two places.

At the outbreak of the Spanish-American war he enlisted with the First Cavalry, and served throughout. He was promoted from Sergeant to First Lieutenant.

When the war was over, not content with being just an ordinary doctor, but having a higher ambition, he allied himself with the Chicago Policlinic Hospital, and in a few years rose from an assistant professor of internal medicine to a full professorship of medicine in charge of the Department of Diseases of the Chest.

During these years Dr. McMichael became immensely interested in the cause and treatment of that "dreaded" disease, tuberculosis, and decided to devote his energies to its solution, if such were possible. The physicians who have been intimately associated with him know that his success was marvelous and his great work will live through years to come to perpetuate his memory.

During the years 1906-07 he went abroad to study in England, France, Italy and Germany. On returning to this country he began the clinical study of tuberculosis, and in 1907 organized the dispensary at the Policlinic Hospital, of which he remained the head until his death. During the years 1914-17 he was head physician of this dispensary under the direction of the Municipal Sanatorium.

Dr. McMichael was one of the organizers of the Chicago Tuberculosis Institute and was always an interested and a willing worker for its aims and purposes. As physician in charge of the Elizabeth McCormick Foundation Open Air Schools, he was enabled to see fulfilled many of his ideas as to the treatment of tubercular children and those from tuberculous families who were suspicious cases. His writings and lectures in 1916 on tuberculosis in children have been recognized as classics.

Following the death of Dr. Theo. B. Sachs, Dr. McMichael received the appointment as Medical Director of the Edward Sanatorium at Naperville, which position he filled with credit to the institution and to himself until called to the medical directorship of the Winyah Sanatorium at Asheville, N. C., in July, 1918. Returning to Chicago in 1910 he resumed his clinical practice where he has continued as one of the foremost authorities on tuberculosis.

His writings on this subject were always of the highest value to the profession and his scientific discussions always conveyed to his listeners many helpful suggestions.

Never seeking public favor, he has nevertheless held many positions of high honor, some of which were Director of the Chicago Tuberculosis Institute, Director National Tuberculosis Association, Consulting Physician Rockford Tuberculosis San., Rockford, Ill., Chief of Medical Staff at Columbus Hospital, Consultant in Tuberculosis, United States Public Health Service, Consultant for Illinois State Tuberculosis Association, in charge of and Chief Medical Examiner of Draft Board 54 during the war. Member of Consulting Staff Illinois Masonic Hospital, member of the Spanish-American War Veterans of which he was a post commander, and member of numerous civic and medical investigating committees.

WHEREAS, it has pleased the All-wise Ruler of the Universe to remove from our midst our beloved co-worker and associate, Dr. Orville Winthrop McMichael, and

WHEREAS, recognizing that it has sustained a great and irreparable loss, therefore be it

Resolved, by the Chicago Tuberculosis Society, in regular meeting assembled this 9th day of October, 1924, that we extend to the wife, son and father of our departed friend, our deepest sympathy in these, their most trying hours, for their great loss; the loss of a man who was beloved, honored and admired by all who knew him; and it is further

Resolved, That these resolutions be spread upon the minutes of this meeting and that a copy hereof be sent to the sorrowing and bereaved family.

(Signed)

CLARENCE L. WHEATON, M. D.
ROBT. H. HAYES, M. D.
N. A. GRAVES, M. D., Pres.
H. C. SWEANY, M. D., Sec'y.

RESOLUTIONS

Dr. William C. Clarke was born in Momence, Illinois, in 1869. He came to Cairo in 1895, shortly after graduating from Rush Medical College, and entered actively into the practice of his profession and continued so until the date of his illness, which occurred more than two years before his death, June 2, 1924.

He was City Health Officer for more than eight years, resigning on account of ill health. He performed his duty as City Health Officer in a scientific medical way without favors or partiality. By so doing the standard of public health and sanitation was raised in this city to equal that of any other city.

Be it resolved that the City of Cairo and neighboring towns have lost a good physician and citizen.

Be it further resolved that Alexander County

Medical Society extends their kindly feelings and sympathy to the bereaved ones.

Dr. S. B. Cary, Chairman,
Dr. H. A. Davis,
Dr. James S. Johnson.

CHANGE OF NAME

You will note that we have changed the name of the Bulletin from that of the Adams County Medical Society Bulletin to the QUINCY MEDICAL BULLETIN. This change has been thought best in keeping with the policy to not restrict the Bulletin to one County Medical Society. The Quincy Medical Bulletin is published in the interest of the entire medical profession of Central Western Illinois, Northeastern Missouri and Southeastern Iowa. Its influence should reach the 900 physicians practicing in the 30 counties surrounding Quincy who serve some 700,000 people. The counties the Bulletin aims to serve are (Illinois) Adams, Brown, Hancock, McDonough, Pike, and Schuyler. (Missouri) Adair, Audrain, Boone, Calloway, Charitan, Clark, Howard, Knox, Lewis, Linn, Macon, Marion, Monroe, Montgomery, Pike, Ralls, Randolph, Schuyler, Scotland, Shelby, and Sullivan. (Iowa) Davis, Lee, and Van Buren.

These counties have been selected because they are nearer to Quincy, the largest city in this territory by far, than any larger sized city outside of the territory.

We invite every County Medical Society in this territory to make the QUINCY MEDICAL BULLETIN their official Bulletin and to let us publish announcements concerning their meetings, news notes of members, etc. Nearly all of the societies in this territory are too small to publish Bulletins themselves because of the expense involved, and it is especially to these that the QUINCY MEDICAL BULLETIN wishes to extend a helping hand.

Harold Swanberg, M. D.,
in *Quincy Medical Bulletin.*

PHYSICIANS OF THE SEVENTEENTH CENTURY BEFORE CHRIST STUDIED ANATOMY

Prof. James Henry Breasted of the University of Chicago in the Daily News, September 12, 1924, comments upon an ancient papyrus he is translating written in seventeen hundred before Christ. The comment in the *News* is as follows:

The old idea that Egypt was exclusively a land of magic, mystery and superstition is dispelled by the discovery of a document showing that Egyptian physicians of the seventeenth century before Christ studied anatomy in the spirit of pure scientific research.

Upon an ancient papyrus now in America there was inscribed in the writing of ancient Egypt what Prof. James Henry Breasted of the University of Chicago has called "the oldest nucleus of really scientific medical knowledge in the world."

Prof. Breasted, who was recently associated with the late Lord Carnarvon in the excavation of the tomb of Tutankhamen, is making a complete translation of this important document which, although it has been in America for a number of years, has never been properly studied. The manuscript, known as the Edwin Smith papyrus, now in the possession of the New York Historical society, Prof. Breasted says "contains incomparably the most important body of medical knowledge which has survived to us from ancient Egypt, or, for that matter, from the ancient orient anywhere." From the style of writing he concludes that the manuscript dates from the seventeenth century before Christ, but it is obviously a copy of a work much older, possibly many centuries older, since some of its terms had become so obsolete as to require interpretation. Even as early as the twenty-eighth century medical books were numerous, for it is related that when the chief architect was showing off a new building to the Pharaoh he had a stroke, and the Pharaoh ordered the "case of writings" to be brought to see what could be done for the stricken minister.

FOUR IMPORTANT MANUSCRIPTS

There are four ancient Egyptian medical manuscripts of importance extant, two in Europe and two in America. The largest and most famous is that which goes by the name of Papyrus Ebers from Prof. Georg. Ebers of Leipzig, best known to the public from his historical novels, "An Egyptian Princess" and "Uarda." The National museum of Berlin owns a medical papyrus of the thirteenth century B. C. The University of California has the Hearst papyrus of much earlier date, the Edwin Smith manuscript, in the New York Historical society's museum, is probably the earliest, as it is undeniably the most scientific of the four.

The origin of this manuscript is unknown. It probably was buried in some tomb of the Theban cemetery, from which it was abstracted by an Egyptian seller of antiquities, who separated the perfect part of the roll, and having glued up the fragments to make a second roll, sold both rolls to Edwin Smith, an American amateur Egyptologist early in 1862. Mr. Smith soaked out the glue and pieced together the fragments. He knew how to read Egyptian, even the cursive or running hand of this scribe, and he recognized the value

of his find. After his death in 1906 the manuscript was given to the society by his daughter.

ABOUT FIFTEEN FEET IN LENGTH

The papyrus in its present state measures about fifteen feet in length but part of it is torn off so it may have been some ten feet longer. The writing is in columns a foot high and about the same width. It is done in a beautiful and regular hand, the Egyptian "hieratic," evidently the work of a skilled scribe, who was, however, unfamiliar with the scientific terms used, for he made many mistakes. Some of these he has carefully corrected, using red ink where the text is black and black where the word is in red.

The book constitutes a treatise on surgery and external medicine and deals with wounds, though one case is possibly cancer, which in later Egyptian documents is called "karkinoma," the origin of our word "cancer." The writer begins with the head and proceeds systematically downward, discussing in turn wounds of the nose, mandible, ears, lips, throat, neck. collar bone, thorax, and spine. It is a true "case book" beginning with the symptoms and proceeding to diagnosis. According to whether the prospect is favorable, doubtful or unfavorable, the physician then pronounces one of three verdicts: (1) "An ailment I will treat," or (2) "An ailment I will contend with," or (3) "An ailment I will not treat." The complete translation of one of the cases is given here to show the style.

TREATMENT SIMPLE AND SENSIBLE

The treatment prescribed is simple but generally sensible. The broken or dislocated bones are set. The flesh wounds are covered with an ointment of astringe herbs and honey. Where the case is clearly beyond his skill the physician wisely does nothing and advises that the patient be made as comfortable as possible and let alone. There is only one charm mentioned in the forty-eight cases.

In Case 7, dealing with fracture of the skull, the surgeon is advised: "You should have made for him a wooden brace padded with linen and have the head fastened to it. His treatment should be sitting, placed between two supports of brick, until you know whether he is making any progress."

In other cases, where the doctor is at loss what to do for the patient, he is advised to "moor him at his mooring stakes." This is apparently an old colloquial phrase which had, even in the seventeenth century B. C. when this manuscript was made, become almost as obscure as it is to us, for the scribe adds a note explaining that "moor him at his mooring stakes" means "put him on his accustomed food without giving him medical treatment."

For dislocated bones the directions are specific and show considerable knowledge of anatomy. In the case of a dislocated jaw the practitioner is told how to put his hands in order to force it back into place. For dislocated clavicle or scapula the patient is to be laid on his back and his arms spread out "in order to stretch out the shoulder until the dislocation falls into place."

In this document occurs a reference to the word "brain" for the first time in any ancient record so far found. The word is unknown in Old Testament Hebrew, Babylonian or Assyrian. It is evident that more than 3,500 years ago, when all Europe was still in a state of savagery or barbarism, the Egyptian physicians not only knew the function of the brain but even had observed that the control of the limbs of the body was located in different sides of the brain.

KNEW OF BLOOD CIRCULATION

That these ancient Egyptians had some idea of the circulation of the blood appears from the following note: "There is in the heart a canal leading to every member of the body. If the physician places the fingers on the back of the head, on the hands, on the pulse, on the legs, he discovers the heart, for the heart leads to every member and it speaks (beats) in the canals of every member." But the actual course of the circulation of the blood was not cleared up until Dr. William Harvey worked it out in 1616.

In speaking of the collar bone, the writer says: "There are two canals under it: one on the right and one on the left of his neck. They lead to his lungs." From such references to the course of the blood vessels and to the shape and connections of the bones, it appears that the Egyptians practised dissection, to which the custom of embalming would naturally lead. Pliny says that the Egyptians carried on post mortem examinations to find out the cause of death.

Case No. 28 deals with "a man having a gaping wound in his throat, penetrating to his gullet; if he drinks water it turns aside, issuing from the mouth of his wound, and he is very hot and develops fever from it."

Case 8 is defined as "a fracture of the shell of the skull, the flesh of the head being whole." In the case of a gash in the eyebrow, he is to make two bandages of linen and "let them be applied on the two lips of the gaping wound, in order to cause the one to join to the other."

BUILDING ACCIDENTS COMMON

In handling great blocks of stone for pyramids and temples by man power alone, accidents must have been common and this supposition is confirmed by the examination of the cemeteries. In a single excavation campaign, where five or six thousand bodies were exhumed, one out of every thirty-two was found to have a fractured bone. Such an accident in the construction of Egyptian skyscrapers may have been the cause of Case 33, where the patient is found deaf and speechless and without control of arms and legs. The physician diagnoses it as "a crushing of the vertebra of the neck" and explains it as meaning that "one vertebra of his neck has been depressed into the next, one penerating the other and not assuming any carrying (of the weight above)," and adds that the man "had fallen head downward on his head, driving one vertebra of his neck into the next." The physician pronounces

the case incurable and suggests no treatment. From the neck the treatise passes down the spine and begins to discuss dislocations of the vertebrae of the back. In the first case under this section, No. 48, the patient suffers pain in moving his legs. The practitioner is instructed: "He should place him prostrate and make for him——" But what was to be done for the man with the bad backbone we shall never know for here comes a break like those we meet with now when we read in a magazine "she began to weep and (continued on page 135)." The scribe was interrupted in the middle of the sentence and did not resume his copying. The rest of the papyrus is blank and when we turn over the sheet we find the back of the papyrus filled with very different stuff, the magical bosh that makes up most of the medical manuscripts of old Egypt.

The first writing on the back begins with an "incantation for the driving out of the wind of the year of the pest." This is followed by three recipes for female troubles, and then a new hand scribe starts in with: "The Beginning of the Book of Transforming an Old Man into a Youth of Twenty." After running for a column and a half this also breaks off abruptly, so we are unable to add anything from Egyptian lore to meet the present demand for methods of rejuvenation. This prescription for the elixir of youth calls for some sort of an ointment which has to be kept in a vase carved out of precious stone, which doubtless cost "the old man" a pretty penny.

PROF. BREASTED'S OPINION

The Smith manuscript will compel a revision of the ideas that formerly prevailed, that the traditional "wisdom of the Egyptians" was confined to magic and the practical arts. Prof. Breasted frankly admits that he has had to change his opinion on this point and he concludes:

"The author of the great Book of Surgery and External Medicine, of which we have a mere fragment on the front of the Edwin Smith roll, was one of a group of men who—had learned that in surgery and medicine they were confronted by a great body of observable phenomena, which they systematically and scientifically collected, sometimes out of interest in the salvation of the patient, sometimes out of interest in pure truth. The class of men thus revealed to us are the earliest natural scientists of whom we know nothing, who, confronting a world of objective phenomena, made and organized their observations and based inductive conclusions upon bodies of observed fact. It is important to emphasize here the fact that these men evidently practiced dissection of the human body, a method of investigation in which Greek medicine, 1,500 years later, was noticeably weak."

The following translation illustrates the general style of the unique manuscript:

Translation of Case 13.

Title: Directions for a wound in the temple.

Examination: If you examine a man having a wound in his temple, when it has no gash, while this wound penetrates to the bone, you should probe his wound and if you find his gema (tempora bone) whole without a fracture herein.

Diagnosis: You should say concerning him: "He is a sufferer with a wound in his temple."

Verdict: It is an ailment which I will treat.

Treatment: You should bind it with fresh meat the first day, and treat it afterwards with ointment and honey every day until he is comfortable.

Note A: With regard to "a wound when it has no gash, while it penetrates to the bone"—it is a small wound extending to the bone, there being no gash in the wound. It means narrow, the wound not having two lips.

Note B: With regard to; "his gema"—it is the region between the orbit of the eye and the orifice of the ear at the back of the jaw.

(Coypright, 1924, by Science Service. All rights reserved.)

OUR CONVENTION CITY

The Medical Parasite: Who Is He?

The big, basic idea of "take and give" enters not into the parasitic life led by too many members of our altruistic profession. The true parasite takes all, gives nothing in return. So it is with the medical parasite: he sucks the lifeblood from the vast storehouse of knowledge treasured in current literature and in textbooks. He enjoys all the rights and privileges of organized medicine. In every worldly sense he walks the path of velvet. But the medical parasite makes no return to his profession whence these blessings flow. He tacitly recognizes the power, the worth and prestige of medical organization. He pays tribute to Esculapius and is even on the roll of local and state societies. But his is a passive membership. He spins in the web of his fancy the excuse that he is too busy to attend meetings; or he pours the flattering unction to his soul that such attendance would be a waste of time. Why go hear rehashed platitudes and listen to the recitation of a whole rosary of empty phrases? This is the Pharasaical conceit of "I know more than thou."

Nevertheless, to save us from a deadening intellectual inertia the quickening work of medical societies must go on. The medical parasite fails to realize that in order to get his mental pabulum some must write and read papers for him. Some must discuss them, but all must catch the finer spirit and the lofty purpose of such meetings. The parasite, forgetting the high ideals of our calling, is satisfied to live from the other fellow's lifeblood and sweat, through the medical journal.

Remember, he is not a slouch. He is self-satisfied. He is successful, but not venal. In fact, he may be the very personification of the good Samaritan. Success alone should make him grateful and inspire the desire to offer something from his personal experience. All of us cannot blaze new pathways. But even as trailers along the beaten path, our daily contact with the protean forms of disease gives the ever present opportunity

of registering a new observation, or lighting on some new surgical, or some new therapeutic wrinkle. No one is so poor in experience, or so barnacled in ignorance that he cannot add his humble mite to the sum total of medical knowledge. Medical progress depends upon these individual accretions.

The parasite's impuissance in doing this is sheer callousness and supreme indifference. Is it an overpowering timidity in self expression? Then one can escape the reproach of parasitism by mere attendance of meetings. This in a way is a silent contribution of good will and encouragement to the active workers.

Shade of Esculapius! They need to be encouraged lest they falter. They need to gird their loins, these torch bearers, so that when they are brought face to face with seemingly insuperable obstacles they will be spurred on to carry the light still farther.

Gentle reader, the day for the conversion of the medical parasite is at hand. We are on the eve of our Annual Southern Medical Association Meeting. Make it memorable by bringing one convert with you to the Crescent City, November 24-27, and there shall be great rejoicing "over the return of the sheep that had gone astray."

HOMER DUPUY, M. D.,
General Chairman,
Committee on Arrangements.
New Orleans, La., Sept. 13, 1924.
—From October Southern Medical Journal.

URGE PHYSICIANS AND PHARMACISTS TO COOPERATE

The following paragraphs occur in a recent bulletin of the Washington State Pharmaceutical Association. They are interesting as showing the attitude of the pharmacists of the state toward the medical practitioner, and the evident desire of the officers of the organization to seek more educational contact with the public.

"There is need for publicity of the right kind in the medical as well as in the pharmaceutical profession. Both have suffered from unfair criticism, as well as unjust legislation. We have all been too much like the ostrich with his head in the sand. We have good professions, but have been too busy with our work, or else too ethical, to tell the public about them. There is no need for all of this mystery in connection with medicine. This attitude of mystery and secrecy is responsible for most of the fakes and many of the 'pathies' and 'isms' that have made such inroads on our profession. The fakirs have prospered while we have silently plodded.

"The relations between the doctor and druggist should be more intimate and more tolerant. Both have their troubles, and each should make an effort to protect the other from unjust criticism. When an individual in either profession is discredited, it is a reflection on the entire field of medicine. The druggist should never attempt to suggest to a friend the fee that the doctor should charge; likewise, the physician should not assume to know the cost of a prescription. Neither is in a position to estimate the fees of the other. The druggist is not qualified to prescribe, nor is the doctor competent to dispense. The training and qualifications of each has prepared them to assume different obligations, and for that reason they should respect the responsibilities of each other."

THE FAILURE OF ABORTIVE TREATMENT OF SYPHILIS

Prof. E. Meirwosky and L. Leven

"Munch. med. Wochenschr." 1920, p. 36

The author reports six cases where abortive treatment of syphilis failed, although such treatment was said to be intensive enough and initiated in good time. The first received ten doses of 0.3 gm. of sodium arsphenamine. After three weeks a reinduration of the chancre occurred. The second received in addition to inunctions eight doses of neoarsphenamine, altogether 3.15 gm. given during six weeks. After six weeks the Wassermann again became positive. The third—8 doses of 0.45 neoarsphenamine plus rubbing. After seven months an additional course was given: 4 weeks of rubbing and six doses of 0.3 neoarsphenamine. Yet within a month large patches appeared. The fourth patient—five weeks of rubbing and seven doses of 0.45 gm. neoarsphenamine. In a few months there was a neurorecurrence. The fifth—five doses of neoarsphenamine. In a few months there was a neurorecurrence although the Wassermann remained negative. The sixth—eight doses of neoarsphenamine and ten doses of novasurol (oranic mercury compound). Within three weeks there was a neurorecurrence.

The authors drew the following conclusions:

1. The idea of abortive cure in seronegative primary lues should be abandoned. Patients at this stage of the disease cannot be cured with a few injections or with one course. Repeated courses are absolutely essential.

2. The division of primary lues into periods of negative Wassermann and positive Wassermann is of no value either practically or theoretically.

3. The generalization of the virus, contrary to the general view, is bound neither with the positive Wassermann reaction nor with the so-called secondary stage. There is only one stage of lues.

4. Since syphilis may continue to exist even in the absence of a biological reaction in the blood or spinal fluid, we have no sure sign of the success of our treatment. It is only after years that it becomes possible to judge whether the patient is safe against relapses.

ABORTIVE TREATMENT OF SYPHILIS

Meirowsky and Leven

(Munchner Med. Woch., V. 68, p. 106, 1921)

In this article, Meirowsky and Leven continue to discuss abortive treatment. They state that first, there is no unanimity among advocates of the abortive method as to the proper time when treatment should be instituted in order to achieve success. Zieler[28] gives it 3 to 4 weeks, and Zimmern[29] even 6 weeks after infec-

tion. Second, still more varied are the opinions as to the intensity of treatment. F. Lesser[34] gives 2 to 3 injections of neoarsphenamine in doses of 0.6 gram during 8 days; Zieler gives 6 to 8 injections in 4 to 5 day intervals and after 3 to 4 weeks additional 4 to 6 injections, to make cure a certainty. Pulvermacher[35] administers 14 injections totaling 5 gm. for men and 4 gm. for women besides one or two additional courses. Thus each has his own method of procedure. Third, not all syphilologists advocating abortive treatment take into account the possibility of the appearance of a temporary positive Wassermann during treatment.

The main point at issue according to the authors is not in the "oscillation"* as such nor in the fact that such cases should not be treated as abortive. They wish to point out the uncertainty of the prognostic value of Wassermann test. We know now that even in the negative stage of primary syphilis the spirochetes may be spread in the internal organs, so that a negative biological reaction is no indication that the syphilitic infection has been extinguished. Reinfection alone can be considered as proof positive of successful abortive treatment. And since such cases of reinfection exist we may conclude that abortive treatment is capable, in many cases, of bringing about complete extinction of syphilis. No one, however, is in a position to say with authority that a given case is or is not cured.

"Since it is our aim to give the patient the best prospects of cure, we decline to extend abortive treatment with one course and prescribe, instead, two or three courses regardless whether the Wassermann is positive or negative. This we consider the true method of 'early treatment' of syphilis."

SEROLOGIC AND CLINICAL OBSERVATIONS IN THE PRIMARY STAGE OF SYPHILIS

By Gross

(Archiv fur Dermatologie und Syphilologie, V. 136, 1921)

There are patients in whom the Wassermann reaction, negative before treatment, turns positive during antisyphilitic treatment even with arsphenamine. Such "oscillation," however, is only transitory.

Whether this positive reaction is provoked by the therapy or whether it merely represents the normal course of the immunological reaction is a question the author attempts to solve on the basis of his cases. This phenomenon occurs in spite of the arsphenamine administration and not because of it. As Wassermann and Lesser think the Wassermann reaction is a function of the host and is only indirectly produced by the arsphenamine and by the destruction of the spirochetes. The reaction, once provoked, continues its course. And it is not till some time after the first arsphenamine injection, which kills all or most of the spirochetes, that its effect becomes manifest either in the disappearance of the positive Wassermann or in its never becoming positive.

The latter alternative is possible only when arsphenamine therapy is instituted early and intensively. If the disease, for instance, tends to produce a positive reaction about the thirtieth day after infection, the reaction will occur on this day even though arsphenamine has been given on the 29th, 28th, 27th, 26th or 25th day. But no positive reaction will appear if the injection is administered about the 23rd day after infection. This positive "oscillation" (the name given by the German syphilologists to the phenomenon which consists of the appearance of a temporary positive Wassermann in a primary seronegative case) under arsphenamine treatment appears at the same time when the serum reaction usually becomes positive in non-treated cases.

From the above it may be concluded that intensive therapeutic treatment should be instituted as early as the third or fourth week after infection in order to prevent the appearance of a positive Wassermann.

*See articles on oscillation by Gross and Martin.

CONDITIONS PERMITTING THE ABORTION OF SYPHILIS

By Levy, Berg and Gerbay

("La Medecine" V. 2, p. 130, 1920-1921)

Patients with newly acquired syphilis pass through a critical period when the Wassermann changes from negative to positive, provided no treatment has interfered. Should treatment be instituted after this critical date, the serum reaction might take longer in turning positive, but positive it will become. If, on the other hand, treatment begins earlier, the Wassermann reaction is weakened and may remain negative or become only slightly positive. There is also a period during which the Wassermann reaction in the serum may be positive, doubtful or negative. The period lasts eight days, occurring between the 37th and 45th day after infection. Before this date reactions in all cases will be negative, after it, positive.

Arsenical treatment extended to patients with the primary lesion can extinguish the infection if instituted prior to the 38th day of inoculation.

THE WASSERMAN TEST AS A CRITERION OF CURE FOR SYPHILIS

[From the Evans Memorial and Boston University School of Medicine]

DAVID L. BELDING, M.D., BOSTON

The Wasserman test has become so strongly intrenched in medical thought as the sole guide for the treatment of syphilis that a reminder that the reaction signifies only an immunological response on the part of the patient, variable in strength and nonspecific in character, may not be out of place. It seems wise to consider more fully the relation of this reaction of the blood serum to treated and untreated syphilis before accepting it unreservedly as a criterion of cure.

Syphilitic Cure.—From Wassermann surveys and other evidence it appears that about 9 per cent. of the adult population has syphilis in some form, the percentage naturally varying with social classes, sections of the country, and race and nationality. A relatively small proportion of this large number die from recognized syphilis, which in 1920 constituted 1.3 per cent. of the general death rate and 2.3 per cent. of the rate between the ages of 24 and 64. The percentage method of Osler, as applied to the mortality statistics for 1920

for persons over one year old, shows syphilis as a factor in 6 per cent. Autopsy findings indicate an even greater prevalence of the disease. Statistics show that although the proportion of syphilitics among hospital patients is twice that in the normal population, in reality less than 1 per cent. of the entire population of the United States receive hospital care directly because of syphilis. From these statistical impressions it is evident that an appreciable number of syphilitics acquire naturally a complete or partial immunity, which, if not entirely eradicating the disease, at least keeps it in a state of inactivity. Patients may have old anatomical lesions, occasionally given a positive luetin or possibly a positive Wassermann test, and yet the disease may have reached a state of temporary cure, while in a still smaller number any or all of these signs may have disappeared.

Early cases of syphilis, because of the possibility of sterilization, and old syphilitics with active lesions, which indicate the inability of natural resistance to cope with the infective process, require treatment. The term "treatment" as used in this paper is limited to drug therapy. Some latent cases need treatment, others do not; but physicians are not yet competent to decide which may safely be left untreated. Treated cases comprise three classes: (1) those who recover naturally without or in spite of treatment, (2) those who respond to treatment, and (3) a small number who in spite of thorough treatment because of low resistance or susceptibility succumb to the disease. Sterilization by means of treponemicidal chemico-therapy appears most effective in early syphilis. In late syphilis the healing of the pathological lesions and the reduction of the disease to an inactive state are the most that can be expected.

A comprehensive definition should include cure through the natural defensive mechanism of the patient and through drug therapy. So indefinite and complex a subject defies limitation within the narrow scope of any arbitrary rules; yet for a working basis it is necessary to formulate certain principles. Permanent cure can be obtained only by the eradication of the treponema from the body. All other cures, natural or artificial, while practically permanent, necessarily must be temporary, inasmuch as a potential focus of infections, as in tuberculosis, may remain. A temporary cure demands: (1) the elimination of all active symptoms or lesions, (2) the healing in so far as possible of old anatomical lesions, and (3) the reduction of the disease to a latent condition through the immunity of the patient or the loss of virulence of the infecting organism.

THE WASSERMANN REACTION IN UNTREATED SYPHILIS

The Wassermann test is a laboratory procedure for the detection of certain substances, collectively designated for convenience the Wasserman antibody, which have been produced by an immunological reaction to syphilis on the part of the patient. Although practically diagnostic of the disease the reaction is not strictly specific since the antigen used for the detection of the Wassermann antibody, unlike bacterial antigens, is not directly connected with the causative organism. The nonspecificity of the antigen permits the occasional occurence of nonsyphilitic fixation, and to some extent discredits the reliability of the test, although, except in febrile, toxic or pregnant patients and those with spirochaetal diseases, the possibility is most remote. The reaction, which depends upon the presence of the Wassermann antibody and the delicacy of the mechanism of detection, varies with the laboratory technique, the stage of the disease and the individual response of the patient.

Laboratory Variation.—Technical difficulties prevent absolute certainty in detecting the Wassermann antibody. Miscellaneous antigens of low potency, careless technique, incorrect determination of the fixing unit of complement and an arbitrary standard of serum volume explain many negative reactions in clinical syphilitics. Statistics merely indicate the present or absence of detectable quantities of antibody in 0.2 c.c. of serum (original Wasserman volume) subject to these technical variations. More exact information may be obtained by using increased amounts of serum for the detection of small quantities of antibody and by measuring the strength of the positive reactions. The measurements in this paper are expressed in arbitrary units according to the titration of serum, complete fixation with 0.2 c c. having the value of 4. On this basis, fixation with 0.1 c.c. would have a value of 8, 0.05 c.c. 16, etc. Laboratory variation may be demonstrated by comparing the results of two large laboratories with a preserved serum of 32 unit strength over a period of several months. For the most part uniform results were obtained, but at times wide discrepancies were observed. On one day the first laboratory might obtain a value of 8 and the second 32 or 64, and on another these figures would be reversed. The daily variation in the fixing unit of complement appears to be the most prominent factor in the production of this condition and in itself is sufficient to explain discrepancies in reports on weakly positive sera.

Clinical Syphilis.—The accompanying table shows the percentage of positive tests, as compiled by Craig,[1] and the average strength of the Wassermann antibody[2] in various stages of syphilis. In general the two follow a parallel course roughly comparable, except in neurosyphilis, to the clinical progress of the disease. During the very early stages the Wassermann antibody is absent or weak, rapidly increasing in strength until it reaches a maximum during the late secondary or early active tertiary stages and then gradually falling as the disease becomes quiescent. Owing to the impossibility of detecting all the so-called naturally cured cases, the relative frequency of positive reactions cannot be determined; but in those cases which occasionally come to light the reaction as a rule is weak.

WASSERMANN REACTION IN CLINICAL SYPHILIS

Stage of Syphilis	Per cent Positive	Average Strength of Wassermann Antibody in Units
Late Primary	89.8	14
Secondary	96.1	23
Tertiary:		
Active		30
Inactive		11
Total	87.4	20
Neuro	68.1	12
Latent	68.1	7
Congenital	82.2	46

Individual Variation.—The greatest source of variation in the production of the Wassermann antibody is the individual. The relation of this antibody to his resistance, or to the severity of the disease, is problematical, although the active disease apparently calls forth a stronger reaction than the latent. Changes from a strong positive to a negative sometimes unexpectedly occur with or without treatment, and are entirely different from the daily fluctuations reported by certain observers, which are chiefly due to technical causes. A negative reaction is not infrequently found in clinical syphilis and commonly in patients with a definite history of syphilis of several years standing but without evidence of active lesions. These so-called negative patients fall into two classes: (1) those who give a positive reaction on repeated tests with two or four times the usual volume of serum, and (2) those who show no detectable antibody with such repeated tests even when allowance is made for natural anti-sheep hemolysin. The majority fall within the first group and comprise old patients in whom the Wassermann antibody has become so weak that it cannot be detected by the ordinary test.

THE WASSERMANN REACTION IN TREATED SYPHILIS

In untreated syphilis the Wassermann reaction is subject to two variables, the response of the patient and the course of the infection. Treatment produces additional complications, since the effect of the drug on the disease, on the individual patient, and on the antibody, has to be considered. Particularly when several drugs are used the problem becomes so perplexing that only the effect and not the mechanism of production can be determined. Results indicate that in the average case treatment tends to produce a negative reaction as well as clinical improvement, but that the two do not always coincide, the reaction in many old syphilitics persisting for a variable time after the disappearance of clinical symptoms. Furthermore, the result depends upon the type of antisyphilitic drug, the stage of the disease and the response of the individual patient to treatment.

Drug Therapy.—Arsphenamine produces a reduction of the Wassermann antibody, which so far as can be determined is permanent in the average case. The immediate reduction depends upon the dose, rate of administration and individual response of the patient, its permanence upon the exacerbations of the disease. The reduction does not entirely depend upon the amount or length of treatment. It does not always occur coincidently with the decline of the clinical symptoms and at times reaches its minimum one to two months after treatment.

The various compounds of mercury differ little in serological effect, provided that the patient is carried to the point of physiological toleration. At least 1 mgm. of metallic mercury per kilogram of body weight per week is necessary to reduce materially the reaction in old syphilitics. The reaction falls during treatment, reaches its minimum at the close and shows a characteristic partial recovery during the next few months.

Stage of the Disease.—In early syphilis the reduction of the Wassermann antibody is readily produced, but its disappearance is not synonymous with the elimination of the treponema from the body. In late syphilis, in spite of a lower antibody content of the blood serum, the reduction of the strength of the reaction and the production of a negative are more difficult and require more treatment.

Individual Response.—Some patients tolerate an appreciable quantity of arsphenamine or mercury, others are sensitive to one or both drugs. This intolerance is unfortunate since the average patient requires appreciable doses to reduce the Wassermann antibody. Some patients require little treatment to attain temporary cure and a negative reaction, while others in spite of thorough treatment show partial or no reduction in antibody titre. Still others may show clinical improvement and no corresponding change in the Wassermann antibody.

THE CRITERION OF CURE

The Wassermann reaction in both treated and untreated syphilis represents an immunological response on the part of the patient, which is distinct from the clinical course of the disease. In the average case clinical syphilis and the reaction run a parallel course, but in the individual patient the reaction may or may not be comparable to the clinical findings. Although an index of the response of the patient it furnishes no absolute measurement of his resistance or of the activity of the disease. Provided allowance is made for the unsatisfactory negative, the reaction of the blood seium is of value for diagnosis but as a criterion of cure it has limitations.

Negative Reactions.—As untreated syphilis becomes chronic or quiescent, the Wassermann reaction tends to become negative. Treatment accelerates this process. The Wassermann test is not sufficiently delicate to show the complete elimination of the antibody from the blood serum and only furnishes evidence that it has fallen below a certain standard. In early syphilis treatment rapidly reduces the antibody below this figure, but many instances of the recurrence of clinical syphilis in insufficiently treated cases testify that such a negative is not a proof of cure. Likewise, clinical syphilis is not uncommon in patients with negative reactions. The use of increased amounts of serum in the test, if properly controlled, will reduce materially

[1] Craig, C. F., The Wassermann Test, 1921, p. 159, C. V. Mosby Co., St. Louis.

[2] Our preliminary measurements with cholesterolized antigens and water bath fixation.

the number of pseudonegatives, but even this refinement will not permit the test to serve as a criterion of cure.

Positive Reactions.—The ordinary Wassermann test, which merely records the narrow range between a strongly positive and a negative reaction, is less satisfactory than the quantitative test, which gives the titrated strength of the antibody. In untreated cases this additional information may be of prognostic value and a high titre antibody in old syphilitics may indicate an unsuspected visceral or vascular involvement. In treated cases it is an index of the earliest serological response to treatment and as such serves as a guide for drug therapy.

Not infrequently patients in spite of thorough and prolonged treatment maintain a persistent positive reaction. The Wassermann-fast patient under treatment either shows no change in the strength of the reaction or gives a partial reduction, which never reaches a negative. Certain patients who are resistant to one drug may yield a negative reaction when treated with another, others seem resistant to all forms of medication. Patients with visceral and vascular syphilis are particularly resistant to treatment. The average patient with a persistent positive reaction is more likely to have an unsuspected focus of infection or show a recurrence of the disease than one with a negative reaction. However, in certain patients a persistent positive may not indicate prolonged treatment, particularly since theoretically it is possible for the reaction to persist after the disease has reached the quiescent state of temporary cure.

In connection with negative clinical findings and thorough treatment a negative Wassermann reaction is of corroborative value in determining temporary cure. By itself the negative reaction does not indicate the cessation of treatment and a persistent positive may not always call for further treatment. The quantitative positive reaction is a valuable guide to drug therapy and an aid in diagnosis, but the Wassermann reaction of the blood serum is not a criterion of cure for syphilis and in this respect is inferior to a complete serological examination of the blood and spinal fluid.

NECROLAGNY AS A PHASE OF MENTALITY

James G. Kiernan, M.D., in *Urologic and Cutaneous Review*, January, 1923, says:

Under the title necrophilia, a group of mental phenomena was long known and regarded as an imperative impulse or "mania." The term, which meant "love of the dead," was used merely to designate the psychology of persons who violated corpses. From the bizarre belief which underlay the mental state many jurisprudents regarded the subjects as insane and irresponsible. Because of certain acts associated with the tendency to violation, W. A. F. Browne (1) regarded the mental state as an atavistic one. Many subjects, however, had full power to control their actions and their excitability although death and funeral ceremonies caused erethism. No mere bizarre belief can, under the just rule of responsibility, power to refrain, not knowledge—constitute evidence of irresponsibility. A preferable term to necophilia, because it involved more of the psychologic state was necrolagny (sex excitement or satisfaction from the dead). The term was more descriptive forensically and clinically of the mental state. It took in the excitability and erethism which necrophilia did not. Popularly necrophilia is regarded from its bizarre actions as a form of insanity. Belief in sex excitement from association with the dead was well illustrated in a legal case which occurred in Chicago some years ago. A policeman was tried on the charge of rape before a police trial-board. As the case was a civil one involving dismissal from the force for conduct unbecoming a policeman, his wife was permitted to testify in his behalf. She claimed that her husband's mind had been unbalanced by the sight of dead bodies taken from the overturned Steamer Eastland where he was detailed to special duty (2). To people, generally, sexual excitement under such circumstances would seem abnormal and hence evidence of insanity. The trial board disregarded the plea (3) chiefly because the wife urged it on the alleged victim of rape as a plea for leniency. The issue of self-control was not made, as the testimony was chiefly as to the existence of erethism.

Sexual excitement from death and the trappings of woe has long been recognized. "Even so depressing an emotion as grief may act as a sexual stimulant" (4). In the disturbances of the emotional balance by grief or death, primitive instincts have a peculiar tendency to rise beyond the threshold of consciousness and in the abulia (will unbalanced) of grief the mind is liable to become the prey of erethism or obsessions (5).

The *Satyricon* (6) bears testimony to popular Roman belief in erethism of funeral aids and hangers-on of tombs. This was satisfied by a class of prostitutes called the *Busturiae* who were freqeunters of tombs and hangers-on of funerals.

Bronardel reports the case of a physcian unable to attend funerals of friends because of excessive sexual excitement on such occasions. (7). The case has been reported of an English lady who fell in love with an undertaker at her father's funeral and insisted on marrying him. Her belief was that the impulse was irresistible whence the determination on marriage.

Persons have been so excited by death and the trappings of woe, that only under these circumstances, have they been able to effect coitus (4). "Funerals, tragedies of the theatres, pictures of martyrdom, scenes of execution, trials in the law courts, etc., are," according to Schlichtegroll (8), "to be grouped together as arousers of sexual pleasure especially in women." The stimulating effect of funerals has been referred to by Leigh Hunt (9), who describes this effect in the devoted friends who cremated Shelley (9).

The lykewakes of the Goths and Saxons and the wakes of the Celts have here their psychologic basis (4). Enjoyment probably comes as a reaction from the fear of the dead to whom respect was shown by the funeral feast. Here is the working of the principles outlined by Crawley (10) that at such feats there is a desire for union among the survivors and a desire for new strength and life prompted by the sad

example of the deceased. These impulses are satisfied by eating together, exchanging gifts and similar acts of union such as coitus. Among certain races ceremonial coitus takes place after the feast.

Whether grief or death acts as a stimulus or abolishes or fatigues inhibitions is a question which requires solution. Probably both factors are, at times, in operation. Production of abulia allows the sex stimulus to rise beyond the threshold of consciousness to dominate or even become an obsession. "The stimulus in a state of repose which appears painful," according to Féré (11), "loses that painful character either partially or completely when acting on the same subject in a more or less fatigued state." Bronardel (12) for example had to stop people masturbating at the Paris morgue in presence of the dead. Desire for masturbation overcame modesty, reverence for the dead and terror. Here was illustrated the psychologic law pointed out by Féré (11) that "a painful stimulus is a strong excitation which causes displays of energy that the will cannot utilize; when, as a result of diminished sensibility, the excitants are attenuated, the will can utilize them and there is no pain."

There are mental states wherein people find a fearsome beauty in the dead where the aesthetic element dominates the sexual and keeps it in the background. Of this Mrs. Havelock Ellis (13) draws the following picture: A man after a long period in whic hhe saves many lives from the sea and finds many drowned bodies, finally strangles his wife. The psychic evolution leading to the strangulation appears in "The Idealist." The wife, who has evidently long pondered over her husband's peculiarities, opens a conversation with the remark: "What would you do if your husband were fanciful over corpses? I have tried to find out in books something as will clear it up, but I never come on the likes of he. He told me once he had married me because I was the only woman he had ever met with an eye like a corpse. He always makes out that there's a perfume around about me as 'minds him of funerals and death chambers. Even flowers he don't lean to till they be failing I reckon it is all in his makeup afore he was born and perhaps he's not responsible. As a youngster . . . he made more than usual practice of getting to see any corpse in the village and even dead dogs and cats were more playthings to him than tops . . . and such like. His mother must have been terrified of anything to do with death all her life. When . . . his aunt drowned herself . . . the sight of her dead face never left the mother and she declared always that he had a look of her. . . . I took fear of him at last and lately I have often thought it would be best to be dead and safe. He'd care more then, too." The boy wanted to be an undertaker but his father hammered it out of him. His father said he had better be a hangman but the boy cried and said he'd as soon be hanged as hang anyone. He had a hatred for slaughter houses and was a vegetarian. His courtship was carried on without kissing or physical demonstrations. While the picture is that of a sentimental nature with a tendency to mysticism which endows the dead with a kind of life of their own, it shows no loss of self-control.

Necrolagny here seems akin to iconolagny or pygmalionism (sex excitement or satisfaction from pictured or sculptured images). A phase of necrolagnic iconolagny was found in Charles V of Germany and his Spanish descendants who delighted in placing themselves in adorned shrouds and lying in coffins. This was a mixture of religiosity and necrolagnic iconolagnism. They were very particular about the adornment of the shrouds. At times funeral ceremonies were held over them. A case reported some years ago was that of a necrolagnic photograph (14). A woman had been an artist's model. A man at the instance of medical students who wanted freak photographs induced her to pose as the "consort of death" holding a skeleton. He afterwards hired a room in an anatomical company's studio. This she was induced to enter blindfolded and was laid on a slab. Corpses were grouped around her. One was gazing in her face. Another was caressing her foot with its hand. With the flashlight she opened her eyes and found herself staring at a corpse.

The torturing of artistic models by Parrhasius and Giotto seems to align necrolagny and iconolagny, although the torture was done simply to secure figures for the painters. In a collection of stories Ted Robins tells of "the happy family" where a Parisian sculptor murders his landlady, her daughter (whom he has married) and two children to form a group encased in marble. Robins' "For Art's Sake" pictures an artist who kills in a cruel manner several persons that he may commit their dying agonies to canvas. These artists are not irresponsible but so carried away by necrolagnic aesthetism as to be heedless of the consequence of their acts (15). A vivid picture of necrolagny is that of the Ephesian matron (16). Here a woman fasts and weeps over her dead husband for a week in a tomb. A soldier seeing a light in the tomb first induced her to eat and then led her to indulge in coitus after satisfying her hunger. The soldier was watching crucified bodies. During his absence friends of the crucified took a body from the cross whereupon the lady helped to replace the body by that of the husband. This story, as Edmund Griesbach (17) has shown, has many antetypes in European, Indian and Chinese literature and folklore. "It is not probable," Havelock Ellis remarks, "that all stories of this type are actually related; in any case it would seem their vitality is due to the fact that they have been found to show real correspondence to life." Direct violation of the dead is very vividly pictured by Herodotus (18) who describes a case where an Egyptian violated the corpse of a woman. Sergeant Bertrand, the classic example of necrolagny, began masturbating at nine years of age, stimulating the sexual excitement, which may have been congenitally feeble, by accompanying thoughts of ill-treating women. It was not till subsequently that he began to imagine the women were corpses. There is a phase of fetichism in this masturbation attitude of Sergeant Bertrand. Erotic fetichism is the term applied by Binet (20) to objects which

have an erotic influence as nearly symbolic as the fetich, charm or mascot of primitive man or the dolls of children. There is in pure erotic fetichism an expression of perverted association where evolution is reversed with return to the incoherent homogenous from the complex coherent heterogenous. "Normal love," says Ludwig Brunn (21), "is a symphony of tones of all kinds, results from various stimuli. Fetichism appreciates the tone of but a single instrument and results but from one stimulus." Fetichism may be a predominant note in normal sexual desire, in auto-erotism of the Narcissan type, in inverted desire, or may be an expression of algolagny. Algolagny varies from symbolic expressions to lust murders either of homosexual or heterosexual type. Where there is dread of law or sufficient moral resistance the acts are merely symbolic. A step lower in evolution and sprinkling of clothing with defiling or destructive fluid results. In a still lower phase clipping of hair has a symbolic fetichic effect. All these acts are symbolically done in brothels. This may lead to lust murders as in a case of Taxil (22). Here a priest developed finally into a state where he had, in a brothel, a prostitute chalked to resemble a corpse and placed in a catafalque in a room hung with black. He then recited the offices of the dead and copulated. He later made an attempt at lust murder on a little girl. Search of his rooms revealed clippings of hair of little girls, women and the pseudo-corpses with labels and dates attached. The clippings of the pseudo-corpses were the latest. Aside from the sex tendencies no evidence of mental abnormality existed. Religiosity cropped up in the symbolic ceremonies in the brothel.

There are generalized types of necrolagny ranging from the innocent erethism through the erethistic to the sadistic and iconolagnic necrolagny. The sexual impulse is often an offshoot of the nutritive, hence it is not astonishing that necrolagny may be accompanied by cannibalism. Community with the dead is most easily reached and the identity of eating a dead person and eating with him is most easily shown by practices where mourners drink the fluids of the body and eat the flesh (10). To some extents the conception of mediaeval vampirism had behind it popular belief based on necrolagny. Vampirism like that of the ghouls of the Arabian Nights who devour corpses must therefore be considered as an atavism and not as an irresistible impulse. Necrosadism is at times a violation of corpses attended by the idea that the person violating the corpse was so defiling it. The mental state is depicted by Zola in the death attendant of "L'Assomir." It has cropped up in attendants on morgues as in "dead John" of Bellevue Hospital. This differs from the mental state where the violator sees a certain beauty arising from death in the dead body. There is an element of error in the statement of Havelock Ellis that there is usually no true sadism either in necrosadism or necrophily. The sadism turns on the motive with which the subject violates or mutilates the dead. Cases occur where the condition proceeds from sexual exhaustion from coitus or masturbation excess, through dress despoiling, picture slashing or porcelain smashing through flagellation and necrolagny to necrosadism, lust murders and cannibalism. There is a necrolagnic fetichism which shows itself in the collection of beautiful heads of children of both sexes made by Giles de Retz. In this has been imitated by many necrolagnists like Bola Kiss of Hungary and by an Egyptian. Women have been enticed into a house, robbed of their jewels and then murdered (afterwards their bodies were all burned but the heads, twenty of which were found in the house). While robbery might in this account for the murders it would not for the preservation of the heads.

REFERENCES

1. *Journal of ental Science,* January, 1875.
2. Urologic and Cutaneous Review, November, 1915..
3. Chicago Police Department vs. Cleary.
4. Psychology of Sex, Vol. III., p. 180.
5. *Alienist and Neurologist,* 1891.
6. "The Satyricon," Firebaugh's Translation.
7. *Journal de Médécine de Paris,* 1886.
8. Sacher Massoch and Masochism.
9. Autobiography.
10. Mystic Rose.
11. *Travail et Plaisir.*
12. *Journal de Médécine de Paris,* 1886.
13. The Imperishable Wing.
14. Urologic and Cutaneous Review, June, 1920.
15. Urologic and Cutaneous Review, February, 1922.
16. Satyricon. Firebaugh's Translation.
17. *"Die treulose Witwe."*
18. Book I.
19. Lunier. *Annales Medio-Psychologiques,* 1849.
20. *La Prostitution Contemporaine.*
21. *Etudes de la Psychologic Experimentale.*
22. *Deutsche Montagschrift,* August 20, 1888.
24. Urologic and Cutaneous Review, June, 1920.

—*The Urologic and Cutaneous Review.*

Correspondence

TELEPHONE COMPANY ABOLISHES TRANSFER OF PHYSICIANS' CALLS

To the Editor:

I am informed that recently the Illinois Bell Telephone Company issued an order throughout the State of Illinois to abolish the privilege of having calls transferred from time to time. This, as you know, would inflict considerable hardship on the physicians who frequently ask for such a transfer in calls. This has been called to my attention from the Secretary of Adams County Medical Society, who states that the physicians of Quincy are protesting the ruling. He also suggests that this matter be brought up for discussion among the profession, and that mention be made of this ruling in the Journal, so that

the various Medical Societies may take it up with the proper officials to see if something cannot be done toward effecting a special arrangement for the physicians. I am writing Dr. Swanberg, of Quincy, for the exact wording of their resolution.

I am also getting from the local telephone office the exact wording of the order. When I have this material available, which should be within a few days, I will write it up in a letter to you which you may publish, or, if you prefer, incorporate the material in an editorial of your own. I will write to you again relative to this in a few days.

Very truly yours,

H. M. CAMP,

Sec. Illinois State Medical Society.

INFORMATION ABOUT PIONEER ANESTHETISTS WANTED

Information concerning the pioneer anesthetists of Illinois is desired for the History of Medicine in Illinois which is now being compiled.

Will every physician who has devoted a considerable part or all of his time to anesthesia for a number of years kindly send at once, his name, address, the number of years in anesthesia and any other facts of historical interest to

FRANCES E. HAINES, M.D.
President of the Chicago Society of Anesthetists,
25 E. Washington Street,
Chicago, Ill.

THE DOCTOR.

A doctor is sure a remarkable man,
He delivers the babies wherever he can,
He stops our pains and relieves every ache,
And controls our diet, be it moonshine or steak.
He sometimes gets paid and often does not.
Why pay the old boy—for it's all tommyrot.
He can live on fresh air and promise galore
And wear the same clothing six seasons or more.
Never mind if he sleeps or is chilled to the bone,
Or is tired and weary when his day's work is done;
Just so he comes running whenever one's sick
And gets to the bedside most pretty d— quick.
Just forget 'bout his pay; it's no use anyhow
When he's dead, he don't need it, so why worry now.
Why think of his widow or orphans so much,
She can always take boarders and washing or such.

The moral is plain: That all should expect
The doctor like others his bills must collect,
For his wife will find out when he's gone and no more
Kind words are not keeping the wolf from the door.

EUGENE COHN,
Kankakee, Ill.

ARTERIAL HYPERTENSION FROM GONADAL INSUFFICIENCY

Detailed study of a hundred cases resulted in demonstrating that arterial tension is in inverse ratio to sexual power in the male and to the amount of menstrual blood in the female. Men of high sexual potency have a lower blood pressure than those of feebler powers and have also well developed testicles, inferior stature and marked sexual appetite; while eunuchoids and those sexually deficient always exhibit raised blood pressure. In women, the more profuse the menstruation, the lower the blood pressure; and as sexual ability and menstruation diminish, arterial tension increases proportionally. The author finds these relations so unvarying as to constitute a diagnostic test.

Is the rise in blood pressure, he asks, the cause of a diminished gonadal secretion, or does insufficiency of the latter occasion hypertension? His observations favor the second of these views. It is established that diminution of ovarian secretion causes increase of thyroid secretion, and vice versa. But hyperthyroidism from ovarian insufficiency is much commoner than ovarian insufficiency from hyperthyroidism. Similarly the internal secretions of the ovaries and testicles have a stimulating effect on the adrenal bodies, and when ovarian or testicular insufficiency exists there arises sooner or later a condition of hyperadrenalism resulting in arterial hypertension. This does not mean that every time the sexual glands become temporarily insufficient serious arterial hypertension occurs. But, just as the existence of a healthy thyroid gland is necessary to the production of hyperthyroidism by ovarian insufficiency, so hyperadrenalism cannot result from gonadal insufficiency when the adrenal glands themselves are insufficient.—P. Zenope (*Revue Française de Gynécologie et de l'Obstétrique*, July, 1922).

MRS. MALAPROP DISCOVERS VITAMINES

Hostess: "May we serve you to another helping?"

Mrs. Malaprop: "Why, I believe you may. That food seems very nutritious. It fairly teems with pantomimes."—*Christian Register.*

MRS. MALAPROP DISCOVERS VITAMINES

Hostees: "May we serve you to another helping?"

Mrs. Malaprop: "Why, I believe you may. That food seems very nutritious. It fairly teems with pantomimes."—Christian Register.

THE GREEN APPLE SEASON

Two boys coming from opposite directions met in the street. One boy had his mouth and hands full of green apples. The other boy, looking up as they passed, exclaimed:

"Are the green apples ripe already?"—*Indianapolis News.*

Original Articles

THE USE OF LOCAL ANESTHESIA IN ACUTE ABDOMINAL EMERGENCIES*

ROBERT EMMETT FARR, M. D.,
MINNEAPOLIS, MINN.

No one will question the necessity for the use of local anesthesia in many varieties of acute abdominal emergencies nor will many question the dictum that the more grave the emergency the more necessary as a rule the use of local anesthesia becomes. In fact, it may be stated almost as an axiom that certain of these emergencies demand local anesthesia to the exclusion of all other methods. It is most unfortunate that, in a fair percentage of cases at least, it may be said that the greater the demand for the use of local anesthesia the more difficult will its application be found. Profound sepsis for instance may be accompanied by a mental state as well as physical conditions which make the use of local anesthesia especially difficult. Again, obstructions and some other conditions, while urgently demanding a choice of local anesthesia, are on account of the accompanying distention, difficult to treat by this method. Likewise, numerous other conditions in which local anesthesia is indicated, present technical difficulties which are not easily met.

Our experience covers almost every type of acute abdominal emergency. In almost all of these emergencies we have attempted to meet the indications by the use of local anesthesia.

In some the difficulties encountered have been so great that inhalation anesthesia was found necessary for the carrying out of certain portions of the operation. However, we have found it possible to develop a technic by which the indications could be met in the majority of cases by the use of local anesthesia alone. It is our purpose, therefore, first: to discuss some of the fundamental principles of the method, and second: to describe more specifically its application in the treatment of certain of the more or less frequent emergencies which must be met by the abdominal surgeon.

There are certain factors which have a marked bearing upon the success with which one may treat acute abdominal emergencies under local anesthesia. Familiarity with local anesthesia technic resulting from its use in the more simple types of abdominal surgery will greatly reduce the handicap under which the surgeon finds himself when confronted with a tragic case. Such familiarity will, of necessity, develop in the surgeon a certain degree of ability. It will automatically result in the development of his assistants, equipment and team work which is so essential when an emergency presents. The safety and facility with which inhalation anesthesia may be resorted to, should the necessity arise, is a factor of the utmost importance. It allows the surgeon to carry out the primary steps of the procedure under local anesthesia with the full knowledge that he may at a moment's notice superimpose inhalation anesthesia as an adjunct and in a much smaller quantity than that found necessary if the latter alone were used. Even though the use of general anesthesia becomes necessary during the most difficult stage of the operation, it may almost always be discontinued and the operation completed under the local anesthesia which has already been induced. It is unusual in our experience in such instances to have the patient fail to regain consciousness before the operation is completed. The post-operative course of these patients has, in our hands, at least, seemed to prove that this modification of the method popularized by Crile has decided merit.

We have not, as a rule, depended to any great extent upon the use of preliminary narcotics for the purpose of meeting psychic incompatibility in these cases. In some instances the use of such medication was, in our judgment, less safe than the application of mixed anesthesia. We do not hesitate, however, to use moderate doses of sedatives when we feel that they are not contra-indicated. They allay restlessness and add greatly to the comfort of the patient, but do not act in any sense as a substitute for perfect anesthesia.

The essentials demanded by the tragic case differ only in degree from those required as a routine, excepting that each should, if possible, be accentuated to a superlative degree. Noise must be eliminated, irritations avoided, bodily comfort assured, anesthesia must be complete, exposure perfect and the operative technic "stealthy." It is perfectly obvious that the surgeon who reserves the use of local anesthesia for

*Read before the Tri-State District Medical Association, October 29, 1923.

the extreme or tragic case will find himself lacking in the essentials mentioned above and will therefore not be able to offer the best offices of local anesthesia when the need for them is greatest. It follows, therefore, that the most valuable asset which a surgeon may possess in relation to local anesthesia is familiarity with its use, equipment and team work on the part of the operating room personnel.

Most abdominal emergencies present certain features of a more or less uniform variety among which are shock, depression, rigidity, grave anemia (in cases of hemorrhage), low resistance, and not infrequently distention. Fortunately, all of these symptoms, except distention, are combated, temporarily at least, by the introduction of adrenalin and the solution (Ringer's) in which the novocain is dissolved. In fact it is not unusual to note an immediate improvement in the patient's condition following the induction of anesthesia.

It is perhaps not unreasonable, therefore, to suggest that the administration of novocain-adrenalin solution is a direct benefit to the patient exhibiting shock and depression. The administration of novocain solution invariably results in a reduction of rigidity in the anesthetized area. That its administration is of direct benefit in cases of acute hemorrhage cannot be doubted. Other things being equal the resistance of a patient will be lowered to a lesser degree by the administration of novocain than by the inhalation of any known general anesthetic. Distention, as stated above, offers one of the most difficult obstacles to the use of local anesthesia in abdominal surgery and yet, as will be shown later, even this obstacle is seldom insurmountable.

In detailing more specifically the manner of operating for certain abdominal emergencies an effort will be made to show that in cases in which the use of local anesthesia offers the greatest difficulty—its advantages in many instances, both during and after operation, counterbalance or even outweigh its disadvantages on account of the beneficent influence of the technic it demands and allows during operation and the improvement in the post-operative course.

For the purpose of illustration a brief description of the manner of using the local anesthesia method in the following emergencies will be described:

1. Perforations of the stomach, gall bladder, or intestines.
2. Appendicitis, acute, unruptured; ruptured with or without abscess.
3. Acute intestinal obstruction.
4. Hemorrhage.

Perforations. The perforation of an abdominal viscus must always be considered as a grave emergency in the case of sudden onset. The complete establishment of anesthesia of the abdominal wall will invariably result in a most surprising relaxation of the parietes. The abdomen should be opened over the suspected area by an ample incision which is made in a direction calculated to give the maximum exposure. The perforated viscus is, as a rule, not greatly distended, lies free in the abdominal cavity, may be manipulated in a moderate degree without the use of intra-peritoneal anesthesia and may therefore be dealt with most ideally under complete anesthesia of the abdominal wall, elastic retraction, good illumination and the application of surgical strategy. Perforated gall bladders, gastric, duodenal or typhoid ulcers and even gunshot wounds lend themselves most admirably to the use of local anesthesia. Intestinal resection, gastroenterostomy or cholocystostomy are among the more simple operations under this method. It is a well known fact that almost the entire intestinal tract may be explored under local anesthesia in the absence of adhesions or great distention. In exceptional cases, where a viscus is perforated by a foreign body (such as a bullet) in some inaccessible region, it may be necessary to employ general anesthesia.

Appendicitis: In this condition three stages of the disease must be considered—before rupture, after rupture, and after the formation of an abscess.

The removal of the appendix, during the first or second stage, under local anesthesia while presenting more difficulties than the performance of the same operation during the interval, is not only possible but in the writer's opinion often most desirable. Anesthesia of the abdominal wall must be absolute. The incision which we have used for over ten years is the transverse incision first described by Elliott,[1] placed rather low. The abdominal walls are carefully stretched by the use of wire spring retractors, the patient placed

1. Farr: Transverse Abdominal Incision. The American Journal of Surgery, September, 1915.

in a moderate Trendelenburg position and tilted well over to the left. In the vast majority of cases the appendix or the tissues protecting it will thus be brought into view. If not adherent, its mesentery is infiltrated *before* any attempt is made to elevate the organ. If adherent, its mesentery and the peritoneum in its region are immediately infiltrated. Long delicate instruments are used and the lines of cleavage are carefully followed. If a localized abscess is suspected, long, narrow strips of gauze may be introduced mesially without discomfort to the patient. In adherent cases it is not necessary to elevate the appendix base to the level of the incision. It may be as easily dealt with by means of a fine curved intestinal needle, a long needle forceps and the forceps tie of Grant. In other words, the surgical technic (strategy) must be made to accommodate itself to the condition presenting.

Localized abscess. In this group two conditions are to be considered. One may, under infiltration, open directly into an appendiceal abscess without first entering the free abdominal cavity; drainage may then be introduced and the operation terminated at this point or the appendix may be dealt with in the manner described below.

In the case of a localized abscess, which cannot be opened directly (and this applies to practically all forms of intra-peritoneal abscesses), the peritoneal cavity is opened in the usual manner, the abdominal wall is retracted vertically, as well as laterally, and an adequate amount of protective gauze packing is introduced. The parietal peritoneum is anesthetized provided it forms a portion of the abscess wall. The abscess is then opened with a blunt instrument which is made to follow the line of cleavage and the abscess is completely drained by means of suction. The opening into the abscess cavity should be sufficiently large so that its entire interior may be inspected. Almost without exception some portion of the appendix will be found presenting and it may be grasped by forceps, its mesentery clamped and its base severed. If there is the slightest difficulty in ligating these structures, a forceps may be allowed to remain in situ. The abdominal wall is then once more elevated and the protective packs removed. Their removal will usually bring the omentum into view. The protective influence of this structure is insured by tacking it into the desired position by means of one or two catgut sutures.

From this time on every effort is made to maintain a quiesence of the movable abdominal viscera. The co-operation of the patient and the absence of vomiting will in the majority of instances furnish protection against the spread of the infection which results from the tossing about of the unconscious patient while recovering from general anesthesia or from the to and fro motion of the small intestines which may be forced in and out of the abscess cavity as a result of repeated retching and vomiting.

Acute intestinal obstruction. This condition, associated as it usually is, with distention, may in some instances, offer a great deal of difficulty when using the local anesthesia method. Notwithstanding this fact, acute obstruction, no matter what its cause, is so frequently associated with regurgitation and the possibility of the aspiration of septic material into the lungs that the protective reflexes should never be inhibited by the use of general anesthesia unless it is absolutely necessary. For this and for many other reasons it would seem most desirable to carry these cases through under local anesthesia whenever possible.

Obstructions which are associated with defects in the abdominal wall are most easily relieved under the local anesthesia method. The simplicity with which this may be done and the abundance of descriptive literature upon this subject would seem to obviate the necessity of describing the technic. All of the indications for the treatment of this condition may be met by the use of local anesthesia and in the writer's opinion the surgeon who inhibits the laryngeal reflexes in such a case by the administration of deep narcosis is withholding from his patient a certain percentage of protection to which the latter is entitled.

Internal obstructions, while demanding local anesthesia with the same emphasis, unfortunately may present greater difficulties. However, it is generally in cases complicated by marked distention that general anesthesia will be found necessary. The realization that the performance of an enterostomy alone is often the best means of meeting the indications in acute intestinal obstructions has greatly broadened the scope of local anesthesia in this field. The beneficent influence of emptying the distended intestine by

means of immediate enterotomy, if carried out aseptically [2] offers a means of emptying loops of distended bowel thus often greatly reducing the difficulties which are encountered. In cases in which this procedure does not seem to be indicated one may be able, after perfectly anesthetizing the abdominal wall, to exclude the distended loops of gut by careful packing and retraction to an extent which will allow him to locate the site of obstruction. Not infrequently following of the collapsed bowel will lead the surgeon to this point. We have also, in a number of instances, allowed the distended coils of intestine to eviscerate more or less completely under the protection of hot, moist packs after which the obstruction was relieved and the intestine returned to the abdominal cavity. Gangrenous gut, if encountered, should be immediately allowed to eviscerate after which primary or secondary resection may be accomplished. The patient's best interests demand the least amount of manipulation that will meet the indications. The administration of intraperitoneal anesthesia, when possible, is extremely effective and the exposed mesentery should be injected without stint.

Intussusception. We have for over 12 years relieved all of our cases of intussusception by means of local anesthesia alone. The observation by Dr. P. B. McLaughlin of Sioux City,[3] that the induction of local anesthesia in the mesentery of the affected bowel caused the immediate relaxation of the contracted wall of the bowel is most interesting. As most of these obstructions occur at the ileo-cecal valve, the location of the incision is usually indicated, even in the absence of a palpable tumor. Upon opening the abdomen the tumor may present or may be palpated and delivered after which the mesentery should be infiltrated at once. All of our operations, excepting one, were performed upon children. In the case which occurred in the adult a transrectus incision was made over the tumor which immediately delivered itself and the intussusception was reduced without pain to the patient.

In the case of acute obstructions which are the result of neoplasms the indications may usually be met by this method of anesthesia. Preliminary enterostomy is often indicated and provided metastases in the liver or pelvis are to be looked for, nitrous oxid may be given when necessary. We have found little difficulty in passing the hand into the abdomen for the purpose of making this exploration provided it is done slowly and carefully.

Hypertrophic pyloric stenosis. There are few operations in surgery in which the patient comes to operation in such a pitiful condition as in the neglected case of hypertrophic pyloric stenosis. In fact, the average case is apt to demand every element of safety which surgery offers. The successful accomplishment of the Rammstedt operation under the use of local anesthesia necessitates team work and the careful following out of a definite preconceived regime. Strict adherence to the rules about to be enumerated allows one to carry out this operation step by step with despatch and the certainty of technical success. An arm table corresponding in height to the operating table is placed at right angles to the latter and near its center point. A stool is placed at either side of the arm table and one at its end. A pillow is then placed upon the arm table and upon this a thick layer of sterile absorbent cotton is spread. The child, whose clothing has been removed, is placed upon the bed of cotton, its feet securely anchored to the operating table, while the psycho-anesthetist assumes the sitting posture and grasps the child by the arms. The abdominal wall is quickly sterilized with iodine and sterile drapes are put in place completely covering the operating table which is used as an instrument table during the operation. The surgeon sits upon the stool at the child's right, the assistant at its left, the sterile nurse stands at its feet. By making traction upon the arms the psycho-anesthetist can control the child absolutely. The abdominal wall is quickly infiltrated by using a fine needle and the subdermal method. We prefer the transverse incision along a line slightly above the lower edge of the liver. Just before opening the abdomen a catheter is introduced into the child's stomach and the gas or fluid with which this viscus is usually distended are forced out by making pressure upon the abdominal wall. The abdomen is now opened between towel pins which retract the abdominal wall vertically and a small retractor used to draw the edge of the

2. Farr: Surgical Clinics of North America.
3. Personal communication.

liver upward. The enlarged pylorus may now be brought to the surface between the operator's thumb and finger, or better by means of rubber-tipped forceps. Should the child show signs of distress, which is unusual, the attachments of the pylorus may be infiltrated. A pacifier is usually placed in the child's mouth at this stage of the procedure. The Rammstedt operation may then be completed, a fine catgut suture passed through the upper edge of the severed pyloric ring and thence through a tab of the omentum and tied, after which the abdominal wall is closed. Many years ago we made the assertion that from a strictly technical standpoint the performance of this operation was, as a rule, no more difficult than the circumcision of a child of the same age. Increased experience would seem to indicate that this statement is not an exaggeration.

Intra-peritoneal hemorrhage. The literature teems with a discussion of the appropriate time to operate in this condition. Since becoming conversant with the use of local anesthesia we have in every instance operated at the earliest possible moment. In tragic cases the introduction of intravenous saline solution or better, non-citrated blood, is begun coincident with the infiltration of the abdominal wall. The abdomen is opened and the bleeding point searched for and treated with all possible despatch. The spleen may be removed after infiltrating its pedicle. The liver may be sutured or gauze packs may be applied or a ruptured tube may be ligated and removed. No attempt to remove the blood clots is necessary and the technic is simplified by allowing them to remain. It is our belief that the stimulating effect of the anesthetic solution (novocain-adrenalin in Ringer's) combined with transfusion and the prevention of further hemorrhage by the use of this benign method offers to the case of intraperitoneal hemorrhage the best possible chance of recovery.

There are other acute abdominal conditions which might be discussed in this message. However, we believe a sufficient number have been touched upon to demonstrate the facility with which local anesthesia may be used in many abdominal emergencies. We further believe that local anesthesia deserves more frequent application in these cases.

HYPERNEPHROMA OF THE KIDNEY, WITH REPORT OF TWO CASES*

ALBERT E. McEVERS, M.D.
Saint Anthony's Hospital, Rock Island
formerly
Associate Staff, Saint Luke's Hospital, Chicago
ROCK ISLAND, ILL.

The subject of hypernephroma has been thoroughly discussed in most of the text-books devoted to disturbances of the kidneys and the pathology of this lesion is generally quite well understood. Its clinical course is well known, but the diagnosis in some of the atypical cases is somewhat difficult and offers a problem of great interest.

Hypernephroma, also mentioned in the literature as nephrogenic mesothelioma or Grawitzian tumor, makes up about seventeen per cent. of the renal tumors coming to the attention of the surgeon. The term hypernephroma was introduced by Birch-Hirschfield in 1892. The etiology was thought to be very obscure; many theories were mentioned as:

(a). Embryonic defects; Cohnheim's theory of embryonic inclusions was conceded by Osler, Kocher, Little, Williams and others. They have described the growth present at birth. The Wolffian origin, as stated by Kelynack, "The Wolffian bodies atrophy from before backwards, and hence the part nearest to the kidney would be the last to disappear, and therefore the most likely to become included." Many authors have described tumor in the fetus and in the early months of infancy. In the adult, it is thought possible that these inclusions may be dormant for many years and then due to some unknown influences begin active growth and manifest such character as would associate them with malignancy.

(b). It is thought by some that hypernephromas were carcinomas arising in the epithelial cells of the renal tubules.

(c). Previous to the publication of Grawitz's article in 1883 these tumors were classed with lipomas. This mistake was due to the fatty appearance of the yellow material in some of these tumors; it resembles lipomatous tissue and it was not until Grawitz's contribution that this error was corrected. His description of the growth definitely differentiated it from lipoma.

*Read before the Tri-City Medical Association, at Davenport, Iowa, July 10, 1924.

He suggested that hypernephroma probably arose in detached (ectopic) pieces of the adrenal (accessory adrenals), basing his belief, that these growths were of adrenal origin, on the following facts:

1. The usual position of the growth underneath the capsule of the kidney where adrenal rests are usually found.

2. The tumor tissue has the same physical characteristics as the adrenal glands.

3. Fat infiltration of the tumor cells, which is a constant feature of the adult adrenal cortical cell. It was thought by some that this was not a fatty infiltration but a fatty degeneration of the tumor tissue until it was demonstrated an infiltration by Grawitz.

4. The high glycogen content of the tumor tissue.

5. Numerous endothelial blood spaces.

6. The presence of a limiting capsule which definitely marks the growth from the surrounding kidney tissue.

7. The relation of the cells to the stroma of the tumor.

8. Microscopically hypernephroma imitates the structure of the adrenal zona fasciculata. Shortly after his article was published, it was questioned by Stoerk and others. Stoerk was of the belief that these tumors were not adrenal in origin. Grier and Wells claimed that the tissue of hypernephromas does not contain adrenalin. Wilson and others were of the belief that hypernephromas arose from (ectopic) nephrogenic tissue. They applied the term nephrogenic mesothelioma. Trisch and Zuckerland supported Grawitz's interpretation. Bland-Sutton states: "Whatever view may be taken of the tissue in which these tumors arise, it is quite certain that they exhibit peculiarities of structure which distinguish them from ordinary round and spindle-celled species of sarcoma. Their malignancy is equally beyond question, for they recur after removal and give rise to secondary nodules in the lungs. The frequency with which the lungs are affected is due to the primary tumor invading the renal vein."

Probably the many objections that were offered by good writers were due to the fact that the scope of Grawitz's tumors was too widely extended. Now the Grawitzian theory has become generally accepted. Ewing, Neoplastic Diseases, 1919, Text-book on Tumors, states: "On these questions it may be said that the presence of adrenal rests of the kidney is fully attested, although they are probably less frequent than many have supposed. It also appears that certain tumors arise from these rests."

Heredity and traumatism do not seem to be important factors. Calculus is often associated with tumor; but it is more than likely secondary in formation. Congenital abnormalities of the kidney and chronic inflammatory conditions do not seem to be important predisposing factors.

It occurs more frequently in the male than in the female. In a series of 114 collected cases, 62 were males and 52 were females.

Age incidence: It may occur at any age but most frequently in the cancer period. In one large series of cases, the greatest number occurred between fifty and sixty years of age.

It is generally unilateral and may affect either kidney. It is rarely bilateral and should both kidneys be affected, it is more than likely that one of them is the result of a secondary deposit from the primary growth in the other kidney.

The onset is insidious and often without pain. The tumor is often unnoticed until it is quite large and interferes with some function of the body or is accidentally discovered. Hematuria is usually an early symptom; it occurs in about sixty to seventy per cent. of all cases. It is usually of intermittent type and profuse, often an interval of weeks elapsing between hemorrhages; it may be slight and continuous.

Work and manipulation of the growth increases hemorrhage.

Hemorrhage may precede other symptoms years before the tumor is palpable; ordinarily though retro-peritoneal tumor can be palpated at the time of the first hemorrhage. In some cases the passage of a blood clot down the ureter causes a renal colic.

Next to hematuria and palpable retro-peritoneal tumor, pain is the most common symptom. It may be dull and continuous or come on suddenly, followed with hematuria. The tumor is often painless until the disease is quite well established. Varicocele is often suddenly developed due to the fact that the spermatic vein has become blocked; this is quite a valuable diagnostic aid (particularly when it occurs on the right side), sometimes is the first symptom, coming on suddenly, may last for a few hours, followed by hematuria, and frequent urination.

As a rule it is on the same side as the pain—sometimes it disappears when the patient lies down. There is sometimes a characteristic fever curve. One observer in a series of eighteen cases reports fever curves, remittent and intermittent, initial, intercurrent and terminal. This, however, occurs in all malignant tumors of the kidney. A high leukocyte count has been noticed in some cases. If hematuria is absent the diagnosis is quite difficult.

Early arteriosclerosis in youthful patients, with high blood pressure, is sometimes noticed. In young patients this growth occurs often between 1 and 8 years, more often in girls than boys. Their growth is abnormal and these children are cross and sullen.

Hypernephroma often evokes phenomena opposite to those of Addison's disease.

1. Early development of the genitalia. The face, genitalia and pubis are prematurely covered with hair.

2. Obesity, appetite and thirst are excessive, often associated with gastric disturbances.

3. Skin darkened, but not bronzed as in Addison's disease—the bronzing in Addison's disease is due to insufficiency of the adrenals—but in hypernephroma the darkened skin is due to adrenal over-activity. In Addison's disease the pigment is deposited in the skin but in hypernephroma the pigment is sent to the skin in excess.

These tumors vary greatly in size from that of a pea to those that are large enough to change the conformation of the abdomen. They originate in the cortex immediately beneath the capsule, usually in the upper pole of the kidney. They are always encapsuled; this capsule definitely separates the tumor from the kidney substance. When the growth is large it may extend through this capsule.

It is thought by some that when these tumors are small they are benign and in some of the text-books hypernephroma is classified as benign and malignant. They are all malignant or potentially malignant. Several cases have been reported where extensive metastasis has been found in the bones and elsewhere, where the primary tumor in the kidney was found to be quite small and encapsulated.

The disease is disseminated by metastasis through the blood stream or by infiltrating contiguous structures by the growth rupturing through its capsule. Some cases are on record where there has been a glandular involvement, the metastasis taking place through the lymphatic system; this is however quite rare.

Hypernephroma grows more slowly than most malignant tumors and does not have the tendency to penetrate the renal capsule; in general, the tumor corresponds to the form of the kidney. The readiness with which the veins become involved is characteristic. A finger-like outrunner of very soft malignant tissue like a blood clot or thrombus in appearance frequently invades the renal vein beyond the hilum of the kidneys into the inferior vena cava.

Metastasis is apt to take place in any part of the body. The brain, bronchial tubes, lungs, diaphragm, gluteal region, heart, intestines, liver, thoracic duct, omentum, pancreas, pleura, peritoneum, skin, uterus and bones have all been reported as having been the seat of metastasis. Spontaneous fracture of one of the long bones may be the first evidence of the disease.

The duration of the disease varies greatly, from one to ten years; the duration is considerably shortened when there is early metastasis. In a series of twelve cases, all died from metastasis except one and that was a recent case. Several other series are reported in which the mortality is almost as high.

In 176 collected cases the following mortality is shown. Of the 176 cases there were 143 nephrectomies which are tabulated as follows:

Immediate operative deaths	33
Died later after operation	43
Survivals	31
Results not stated	36
Total	143

This report is somewhat unsatisfactory due to the fact that many of the records were incomplete. Of the 43 that died after operation, only four lived beyond the three-year period. One of them died eleven years after operation, 33 (of the 43 that survived the operation but died later) died in less than three years after operation.

Case 1: Mr. E. K., aged 54, white, male. Occupation, clerical work. Admitted to St. Luke's Hospital, Chicago, January 14, 1921, with the following complaints:

1. Tenderness over the upper abdominal wall.
2. Hematuria.
3. Polyuria.
4. Feeling of pressure in the bladder.
5. Loss of appetite.
6. Loss of weight.
7. Sudden development of a left sided varicocele.

8. Engorgement of veins on the right side of face.

Note: Hematuria has been present about ten times during the past year; for the last twenty years the patient states that he has had hematuria, which would come on at varied intervals and last for a few days, then disappear for several months.

Previous illness: Chancre in 1900, took no treatment. Gonorrhea in 1918.

Family History: Father died at the age of 79, mother died at age of 58 with cancer of the stomach. Brother, sister, wife and child all living and well.

Physical examination: Patient is a fairly well nourished white male, 54 years of age, who does not appear acutely ill. Face moderate full, red, flushed and smooth. *Eyes* react to light and accommodation. *Mouth* negative. *Hearing* normal and *nose* negative. *Neck* is regular, no enlargement, no cervical adenopathy, slight venous pulsation. *Chest* is regular, full, expansion good, no rales, no consolidation, slightly increased bronchial breathing. *Heart* apex is outside nipple line, systolic blow best heard at apex and transmitted to axilla; slight accentuation of pulmonic second. Rhythm regular, beat slow, tone generally good. *Abdomen* regular, moderate full. *Liver* not palpable. Marked tenderness and soreness over epigastrium. Left kidney, palpable, extends nearly to midline and downwards to the level of the umbilicus. Kidney is hard, movable and not nodular. Genitalia and extremities negative. Reflexes, bone and joints and skin negative. *Preoperative diagnosis,* hypernephroma.

Cystoscopic examination: Bladder is negative. Ureters are catherized with ease. Phenosulphonephthalein test was made and separate specimens taken from right kidney, left kidney, and bladder. Report: Left kidney, ten minutes, contained no dye. One hour specimen, 23cc, 2% phenol. Two hour specimen, 32cc, 2.8% phenol. Right kidney, ten minute specimen, 3cc, contained no dye. One hour specimen, 28cc, 7.2% phenol. Two hour specimen, 30cc, 7.1% phenol. Bladder specimen, too much blood to read.

Blood examination: Erythrocytes, 2,710,000; leucocytes, 8,400; hemoglobin, 48%. Chemistry-Blood sugar, 0.108%. Blood urea Nit. 29.42 per 100cc.

Urinalysis: Urine from bladder, specific gravity 1,015, opaque, straw color, faintly acid reaction, albumin, a few hyaline casts, frequent leucocytes, red cells, and renal epithelial cells. Blood Wassermann was clearly negative.

X-ray examination of both kidneys: The left kidney is greatly enlarged. No evidence of stone in either kidney.

Operation: Curved incision was made over kidney region (lumbar). A very large nodular left kidney was found, two and one-half times the size of a normal kidney. This was delivered and pedicle was clamped and tied and kidney removed. Muscle and skin were approximated and gauze drain inserted.

The specimen was examined by Dr. Edwin V. Hirsch, who reported as follows: A kidney 16.5 cm. long, 10 cm. wide and 7 cm. thick, in its upper hole having an encapulated yellow nodule 9 cm. in diameter. On the surfaces made by cutting this nodule, there is friable yellow tissue mottled by many small hemorrhages. Dissection of the vessels at the hilum discloses a red thrombus in one, and in another near the lower part of the tumor, a thrombus 4 cm. long, 2 cm. wide and 2 cm. thick, yellow and friable, resembling the tissue of the tumor proper.

Histology: The sections of tumor tissue, taken from various places contain cells repeating essentially the structure of those of the adrenal cortex.

The patient made a splendid operative recovery and was discharged from the hospital in good condition. About five months later he displayed evidences of multiple metastases in both lungs and the liver and died shortly after.

Case 2: Mrs. M. F., aged 44, colored, female, occupation cook, admitted to St. Luke's Hospital, Chicago, June 12, 1919, with the following complaint: Patient has noticed a lump in her right side for six or seven years, painful for four or five years, much worse just before entering hospital; this pain over the region of the right kidney.

1. Hematuria.
2. Loss of weight.
3. Loss of appetite.
4. Sleeplessness.

The patient describes the pain as being similar to labor pains. Accompanying these attacks of pain is the passage of dark red blood from the urethra. These attacks are brought on by over-exertion and exercise, and last for two or three days and of late attacks have been more frequent. Patient states that moving around causes an increase in the right lumbar pain. Family history negative.

Physical examination: Patient is well developed and well nourished negress, apparently fifty years of age. *Head* is normal. *Hearing* is normal. Pupils are equal, regular and react to light and accommodation. *Mouth* is negative; *neck* negative. *Chest:* Lungs are negative. *Heart* is normal in size, apex not palpable. Mitral systolic murmur is heard at apex transmitted to axilla. *Abdomen:* Right kidney greatly enlarged and tender. Liver and spleen are not palpable. Extremities normal. Blood urea, 23.3 mg. per 100cc. Total non-protein Nitrogen equals 37.7 mg. per 100cc. Blood Wassermann clearly negative. Urine negative except for erythrocytes and frequent leucocytes, and in some specimens a trace of albumin. Urine was examined for tubercle bacilli and none found.

Operation: Right nephrectomy was done. A large right kidney removed. *Diagnosis:* Hypernephroma.

The patient was discharged from the hospital November 16, 1919, about four months after operation, apparently cured.

BIBLIOGRAPHY

1. Kelynack: (Hypernephroma) "Renal Growths," 1898, p. 23.
2. Grawitz: (Lipoma) Virchow's Archiv., 1883, Bd. xciii. S. 39-63. (Origin of Growths from Adrenal "Rests") Verhandl. d. Deutsch. Gesellsch. f. Chir. Berlin, 1884, Bd. xiii. S. 28-38.
3. Trisch and Zuckerkendl: (Struma Supraenalis Accessoris) "Handbuch der Urologic." Bd. ii.
4. Sutton, Bland J.: (Hypernephroma) "Tumours Innocent and Malignant." Sixth edition, 1917, p. 112-114.
5. Ewing: (Hypernephra) "Neoplastic Disease," 1919, p. 117, 123 and 136.

6. White and Martin: (Hypernephroma) "Genito-Urinary Surgery and Venereal Diseases." Tenth edition, 1917, p. 669.
7. Garceau: (Hypernephroma) "Tumours of the Kidney." 1909.
8. Shudders: Ann. of Surg., 1906, Vol. 44, p. 855.
9. Wilson, L. B.: (Jour. of Med. Researches, Jan., 1911.)

PUBLICITY SIDE OF PUBLIC HEALTH WORK*

E. R. PRITCHARD,
Secretary, Chicago Department of Health.
CHICAGO

I am inclined to start this discussion of the publicity side of public health work with the postulate, "Publicity is an essential factor in any organized effort for public betterment." In fact, it may be taken for granted that publicity counts for as much as an adjunct in successful public health work as it does in the successful exploitation of any article of merchandise. Important health truths are often driven home more forcefully in a single sentence than in an essay of many hundreds of words. The short, pithy paragraph is read by almost everyone under whose eye it may fall; and the fewer words in which an important statement is made, the more easily it can be remembered.

The properly organized and equipped health department of today finds its activities largely in the field of what is known as preventive medicine. It seeks to prevent needless sickness and death and in this way to prolong life and promote the general welfare.

As is well known, most of the communicable diseases are preventable; and the great, big factor to aid in this prevention is publicity—publicity and education. These two terms are practically synonymous. Publicity means information; information means enlightenment and in a sense education. I take it, it would be conceded that a health department, no matter how well equipped, cannot reach its highest efficiency without the intelligent co-operation of the people it is seeking to serve. But before this intelligent co-operation can be obtained, the people must be shown why such co-operation is necessary. And this means that the health official must inform and educate those people who, conceding that they need his services, have no clearly defined conception of his duties and responsibilities and still less as to their own.

The health department of today in its many activities touches more closely perhaps the life of the people than any other branch of the municipal government. The reason for this is obvious, as under most municipal laws health departments have to do in a regulatory way with almost everything and anything which has a bearing upon community comfort and safety. And in order that activities of this character may be successfully carried out, publicity and education are necessary.

It is difficult to get people to conform to certain requirements in the interests of public health and comfort when they are not informed as to the needs of such requirements. Both interest and co-operation are stimulated by the knowledge of why certain things are a menace to public safety. For example, when a citizen fully understands the direct and important connection between a pile of stable refuse and the swarms of disease breeding flies that torment both him and his family, he is then ready and willing to comply with the notice served admonishing him to remove the cause of his trouble. And when he has also learned that the fly carries the germs of many of the dangerous diseases and in this way causes sickness and death, he can easily be enlisted to give his time and even his money to rid his neighborhood of flies and protect the health of his own and his neighbor's family.

So in community clean up weeks, publicity is the great, big factor. The educational side of this publicity lies in the people being educated to the fact that, if cleanliness is a fine thing for one week in the year, it is still better to be practiced 52 weeks in the year. It does not take long to carry home the idea that the battle against dirt and unsightliness is continuous; that dirt and filth accumulate, cleanliness does not.

Publicity and education have made valuable the greatest discoveries of medical science. And this is true from the discovery of vaccination for smallpox down to the discovery and use of toxin-antitoxin as a prophylactic against diphtheria; not forgetting either the work done by Reed in capturing the stegomyia mosquito as the agency through which yellow fever was transmitted and spread throughout the south. As a result of the publicity following the fact that a certain type of mosquito was responsible for the transmission of yellow fever, we have the Panama Canal, which, while a triumph of modern engineering

*Read before the Section on Public Health and Hygiene, Illinois State Medical Society, Springfield, May 7, 1924.

skill, is not so much a tribute to the noble profession of engineering as it is one of the crowning achievements of medical science. It may be remembered that France tried to build a waterway across the isthmus and failed, not because of lack of engineering skill or financial means, but because she did not have the necessary knowledge of the mosquito—the anopheles and stegomyia—which through exploitation is common property today. Uncle Sam was able to build the Canal because of his knowledge of the mosquito. And while the Canal was being built, be it recorded that the death rate in the Canal Zone was as low, if not lower, than it was in the City of Chicago.

The progressive public health official is keenly alive to the fact that publicity, or advertising if you so please to call it, can only be made effective by keeping everlastingly at it. Constant, almost daily, repetition of well known facts is necessary. For example, in the Bulletins of the Chicago Health Department, I take it, it has been repeated thousands of times that diphtheria begins usually with a sore throat. Don't neglect the slight sore throat. Call your doctor early. And yet because of the department's inability to reach all the people all the time and only a few of them part of the time, Chicago's diphtheria death rate, like that of most other cities, still is criminally high. More publicity would help to bring diphtheria under control. I mean by this the kind of publicity that carries with it the information which would educate people to the things that they should do to prevent their children from having this dread disease.

There is need, too, although I say it with due respect in this presence, of education along public health lines among the doctors. The busy, bedside practitioner has no time to study or visualize public health problems. It frequently happens that he may have the wrong viewpoint as to his relation to his health department. He may feel, and possibly sometimes not without cause, that he is not getting the help and co-operation from his health department that he is entitled to. But so far as my experience goes, health officials are anxious and earnest in their efforts to have the co-operation of the medical profession and equally anxious and interested in creating an intelligent demand for the services of the family doctor.

I think I can say without exaggeration that in the ten years or more in which I have been engaged in the publicity and educational work of the Health Department of the City of Chicago, one of the prominent, if not the prominent, features of all our publicity work consisted of advice and pleas, urging the people to avail themselves of medical skill and treatment. A notable example of this sort of propaganda may be found in the literature of health departments almost everywhere, urging upon people generally the importance of periodical medical examination. This sort of health department publicity is based largely upon the growing death rates from the degenerative diseases, such as organic heart disease and chronic nephritis; diseases which are killing people in early life.

I know that in the Chicago Department of Health, through our publicity work, we have been hammering at this subject for several years. We have tried to drive it home to the masses in a way so simple that he who runs may read and understand. In some of our literature the comparison has been made between the human machine and the high priced automobile. The owner of the automobile is quick to detect something wrong or unusual in its working. And because he thinks a good deal of that machine, he drives it around to the mechanical expert, has it looked over and put in good running order. He is not so careful, however, with his human machine. Too often he neglects taking himself to the medical expert until it is too late; and like the neglected automobile, ready for the scrap heap.

So we have publicity campaigns on cancer, in which the people are again advised to seek early diagnosis and treatment.

Medical science has furnished the knowledge as to the cause of typhoid fever and how it is spread; but publicity has made that knowledge a blessing to millions. Time was when a death from typhoid was attributed as an act of Providence. Now we know it is either man's cussedness or stupidity. Towns and cities over this land are beginning to learn that it is little short of criminal idiocy to pour their sewage filth into the sources from which they take their water supply. Publicity and education are the factors that are helping to make this world a safer, cleaner place in which to live. Exploitation of the right kind of knowledge makes always for

better community conditions and higher standards of living.

Awhile ago I made the statement that there is need of education among the medical profession along public health lines. In view of the fact that this statement may be challenged, I respectfully submit the following as an example.

Some years ago in the Department of Health an investigation was made into 300 diphtheria deaths, the object being to determine why those 300 children had died and also to fix the responsibility. The tabulations showed after careful investigation that in 55 per cent. of the cases the parents were to blame; in 45 per cent. of the cases the physicians were at fault. This means that the parents had neglected to call the doctor soon enough. They thought it was only a little sore throat and it would be all right in the morning. The next day or the day following it was too late. The doctor, however skilled, was called only to make a losing fight. In the cases where the doctors seemingly were at fault, it was found that they had been called on the first day of the attack but had hesitated to administer antitoxin, either because of doubtful diagnosis or reluctance to place their patients under the rigors of quarantine.

Perhaps it should be explained that the department has a rule, if antitoxin is administered the case must be reported as a suspect and the house placarded. I can understand readily why the practicing physician hesitates in some cases to administer antitoxin as promptly as he should. Also there are physicians who have a morbid fear of anaphylaxis, although they are few, and who hesitate to give antitoxin on that account. We find physicians, too, who, if informed, are indifferent as to the importance of the Schick test and the prophylactic use of toxin-antitoxin.

I believe I am warranted in saying that if both parents and physicians were thoroughly familiar with the work done by Drs. Park and Schroeder of New York during the past ten years and would avail themselves of the agencies now made possible by medical science, diphtheria would soon reach the vanishing point in any community where such procedure was intelligently and persistently carried out.

My faith in the value of publicity in public health work is such that I am convinced that if the Health Department of the City of Chicago could spend money as liberally in exploiting the Schick test and toxin-antitoxin as a certain well known business man has expended it in exploiting his chewing gum, in a very few years we would have no diphtheria in Chicago.

It was the Earl of Derby who said "Sanitary instruction is even more important than sanitary legislation." Sanitary instruction can only be given the masses through publicity. A public which is informed in matters of public health and community sanitation is a public which will give intelligent and hearty co-operation in all movements for public betterment. Because this is true, the successful health official seeks to make use of every available means at his command for informing and educating on health matters the people he serves. And in doing this he is not averse to the daily interview with the newspapers of his town on health topics.

It is gratifying and encouraging to know that the newspaper men themselves appreciate the news value of the health story. And in this connection I would like to pay a tribute to Dr. Frank W. Reilly, for many years Assistant Health Commissioner of Chicago, and who was sometimes rightly called Chicago's most useful citizen. In my judgment Dr. Reilly may be said to be the father of publicity and education as important factors in public health work. For many years Dr. Reilly was the managing editor of one o f Chicago's leading dailies and it was in that capacity that he discovered the value of the health story from a purely news standpoint. He found that health information has a distinctive news value. Also that people, or at least a large part of them, are anxious to know about the things that cause needless and, therefore, preventable sickness and deaths among them.

It was along these lines that 25 years or more ago he wrote, published and had widely circulated by the Chicago Department of Health a pamphlet, "Summer Care of Babies." This valuable little publication was among the first, if not the first, publication of its kind ever issued by a department of health in this country.

So here we had a trained newspaper man, who was also a skilled physician and sanitarian, instinctively recognizing publicity and education as fundamental aids in the successful prosecution of public health work. Dr. Reilly recog-

nized the importance of letting the mothers of Chicago know why their babies sickened and died and the things that could be done to save them. And so it was that this great advocate of public sanitation created the "health story" and made it news. And when he did this, he set in motion the agencies that have saved the lives of thousands of babies in Chicago and stimulated the health officials of other cities to follow his lead.

DISCUSSION

Mr. B. K. Richardson (Springfield): I heartily endorse the sentiments and opinions expressed in Mr. Pritchard's paper. It is just along the lines that I am thoroughly convinced that health work will progress and without the kind of publicity that Mr. Pritchard has recommended a Health Department will not get very far.

Dr. I. D. Rawlings (Director State Department of Health, Springfield): I am very glad to hear this very interesting paper from a man under whom I received much of my training. I also received a little under Dr. Reilly as well as Mr. Pritchard and we know that much of the excellent work that has been done and is being done in the Chicago Health Department is largely due to the health education which Pritchard has spread through the writings which he has given that city in connection with the Sanitary Bulletin of that Department.

Not long ago I met Dr. Dowling, the Health Officer of New Orleans, on the street and he said: "I want to congratulate you on the fact that I heard Dr. Rankin say Chicago has the best Department of Health he had investigated up to that time for the National Committee on Municipal Health Department Practice." I said, "Why congratulate me?" He said, "I had forgotten you were not still with that Department," and I told him he couldn't offend me by saying that of Chicago's Health Department, for I was with them twenty-two years. But much of that Department's good work is due to Mr. Pritchard, who has been there day in and day out for nearly thirty years. I think in part the good record made there is that the Department is under Civil Service and the men doing good work there continue year after year, they get their message "across" by saying the same thing over and over again, in a little different form perhaps. It is the very best thing for the health service of the public that we do have newspaper men get into the health game because of the education and publicity which is an all important thing in health work. The people become educated so that they understand why health officials are doing these things and then they are with us both in providing funds and co-operating to help carry out the things that will benefit them.

Edward R. Pritchard, Chicago (closing the discussion): I have no desire to trespass on your time except I feel that there is a crying need for more intelligent and better organized publicity work in all public health activities.

I was very much interested in the paper read by Mr. Glueck this morning, and it seems to me that in every paper presented here I saw the publicity angle. I saw what could be done. I have heard it said that a specialist sees his specialty in every case he looks at. Perhaps, as I am a publicity specialist, I see the publicity possibilities in every phase of public health work which has been presented this morning that I have listened to.

I recall the mention of bubonic plague in California, but I can't remember the Doctor who presented it; but I felt like getting to my feet and saying it was what we call pitiless publicity which uncovered that situation there and has helped to clean it up. We know that Uncle Sam is still conducting his campaign against rodents and other flea bearing animals, and today hundreds of experts on his payrolls in the states on the Pacific coast are trying to wipe out those disease bearing animals.

Our bulletin in the Department of Health has sixty-five hundred circulation. Sometimes it makes me think I am trying to beat down a brick wall a mile high and a foot thick with a tack hammer. Last month, however, we sent out a milk bulletin with the co-operation of the milk dealers association of the city of Chicago of five hundred thousand copies; and through the co-operation of the milk wagon drivers there was one placed in almost every home in the city. So that helped a little.

RADIUM TREATMENT OF MALIGNANCY*

FRANK M. HAGANS, M. D.,
LINCOLN, ILLINOIS

The treatment of malignant conditions by radium has now been in operation for a sufficient length of time to permit conclusions with regard to its value to be formulated.

There is a certain group of cases of malignancy where treatment with radium has apparently, so far as my observations extend, been capable of eradicating the clinical manifestation of the disease and has been pronounced "cured" if you will pardon the phrase—as it would, indeed, be premature to use the word "cured" without the commonly accepted three to five year time limit. This group of cases includes the more superficial and less rapidly metastasizing forms of carcinoma.

Statistics show us that the cancer death rate has increased and from the fact that it is constantly rising, evidences a deplorable condition and demands a much larger measure of public support than it has received in the past. And yet, we have overwhelming evidence that cancer

*Read at the Annual Meeting of the Illinois State Medical Society at Springfield, May 7, 1924.

cases are being arrested, or cured, to an increasing extent, and that many who might have died from cancer, die from some other disease, as the result of early diagnosis.

To keep up an effective work against this dreaded disease, we must show a closer co-operation with the general practitioner—as he is the one upon whom the responsibility of early recognition must depend and it is his duty to not permit cancer cases to drift along, until a chance of an effective radiation has passed. At the present time the large majority of cases which come to the hospitals for radium treatment have a hopeless prognosis, partially because they have been overlooked or because they have been allowed to drift along. This isn't fair to the competent general practitioner, neither is it fair to the radiologist or the surgeon. When in doubt as to definite diagnosis it is much better to consult with one who has had a greater experience in this special field, rather than be embarrassed later with a malignancy of a vicious type.

As we know, some avoid the general practitioner because of fear of an operation and for this reason seek the drug store remedies or more frequently go to the cancer quack who applies his usual arsenic paste. It is this class of patients that cause us more grief than any other, because they come to the physician late, and he is called upon to treat the metastases, and because radium or surgery fails in this group both methods are condemned by the patient and his friends; and his friends like himself are likely in their turn to lose the best chances for recovery.

To cure cancer cases, they should be treated early and thoroughly. Thorough treatment *must* include radiation, no matter what other form of treatment may be in combination. Whether radium should be used alone or combined with other treatment, is a matter for careful judgment in the individual case.

I believe that the patient having epithelioma of the lip does not get all possible chances for recovery unless radium is given. Radium is the best form of radiation locally on the superficial lesion and in regions where glandular metastases are likely to take place. Before treatment is begun in these lip cases every form of irritation affecting the lip should be removed, such as a jagged tooth, irritation from a pipe, cigarette paper, excessive cigar smoking, or excessive exposure to heat, cold or wind.

Both Bloodgood and Phaler advise the use of radium without the removal of a section for diagnosis, as it gives no advantage and often aggravates the disease. Personally I agree with them and carry it out in my practice, as it has been a long time since I sectioned a lip case.

It requires very little more traumatism or deformity to destroy the growth and if it were on my lip I would rather have it off than merely know what it is. The danger to the patient of artificial spread of the disease outweighs the advantage of certain diagnosis.

Any fissure or crust formation on the lip that lasts over a month without a complete healing should be looked upon with suspicion. Occasionally we get a case of cancer of the lip that has been treated for syphilis, but syphilis should be no cause for neglected treatment since it is possible to have both diseases at the same time. A positive Wassermann test will help eliminate lues from the diagnosis. The local lesion in these cases is probably engrafted upon a syphlitic base.

If the case is a suitable one for radium, details in regard to the dosage, screening, distance, duration and frequency are determined. Special methods of application devised for special cases and the progress of every case treated, should be followed by one familiar with this special field of work, and if patients are thoroughly treated in the early stages, practically all should get well.

The radium needles are used mostly in these particular cases and they are the plain metallic needles containing radium sulphate in the amount of five to ten milligrams. The technic of application is usually the through and through method. In treating these cases one must not overlook the glands that are usually involved. If the invaded glands have not broken down, they will usually disappear under judicious cross fire radium treatment. An external application of a radium plaque may be given if the glands so affected are small. But if the glands have acquired considerable size, the radium needles may be inserted directly into the glands. Sometimes it is difficult to determine whether a true metastases has taken place or simply inflammatory.

Whether it is possible to accurately determine this condition or not, radium is indicated in either case. If degeneration has taken place in the parenchyma, the size will be reduced, but not entirely disappear due to benign fibrous tissue. (Glands in this state may be curretted, incised or drained with comparative safety to the patient.)

Nearly all malignant conditions at the present time are treated by the needle method, which has revolutionized radium technic.

Better results are obtained by inserting radium needles directly into the malignant growths or into an organ contained in the peritoneal cavity after exposure of the lesion by laparotomy, than by any other method.

The plaque for surface radiation is still popular with radium users as is the capsule, for amassing doses for the uterus, bladder or rectal cases. Otherwise the capsule form has its disadvantages in producing an action that is too concentrated at the point of contact and the advantage of cross firing is not obtained.

The distance of insertion for radium needles into a malignant growth for the best effect is about two and one-half centimeters apart.

The question of secondary burns from the bare needles, is no longer a question in doubt, as it has been demonstrated by clinical experience that when needles are inserted into moist tissue such as constitute malignant growths, that the film of moisture surrounding the needles is or may perhaps be sufficient to absorb the secondary rays and the destructive beta rays, providing the exposure is not too long.

The length of exposure is governed by the density and vitality of the tissues and the proximity to vital structures. If the tissues are of low vitality or partly broken down or devitalized, sloughing will take place unless the radium dosage is accurately estimated.

It is possible to have needles remain in place in some tissues as long as twenty-four hours, causing retrogression and disappearance of malignant growths, but no destruction by sloughing.

Destruction by sloughing is no longer to be desired since we have learned by clinical experience that our best results are obtained by a different and newer technic, whereby we are able to accomplish total retrogression without destruction of tissue.

If we desire a concentrated action at the point of contact, a capsule of sufficient dosage is used or if a capsule isn't available a sufficient number of needles are grouped together and put into a capsule of brass or other metallic filter and covered with rubber.

Or the needles may be placed side by side in a suitable flat screen covered with rubber and used when a flat plaque is indicated.

Radium needles make it possible to treat malignant lesions more successfully in easy accessible locations than in locations difficult of access. Yet in treating the deeper structures such as any of the abdominal viscera, prostate gland, bladder or rectum, recent experience has demonstrated that malignant disease of these structures may not be entirely hopeless.

In treating carcinoma of the cervix, 75 mg is placed in the cervix screened with one-half millimeter of silver and one millimeter of brass, 50 mg against the cervix or a sufficient number of 10 mg needles to cover the lesion, inserted two and one-half centimeters apart.

These cases are always cross-fired with x-ray for ten minutes, and the radium treatment continued for twelve to sixteen hours.

A gauze pack in the vagina is used for distance screening to protect both the bladder and rectum. Otherwise a resultant fistula might occur from too close proximity with radium.

This treatment is repeated in six weeks and each time the patient comes to the hospital she is allowed to remain six days and in the six days two treatments are given. Treatments are given with the patient in the same position as for a vaginal examination.

The majority of cases are treated without an anesthetic. Usually one-fourth grain of morphin a few minutes before taken into the operating room is sufficient. The total number of milligram hours that is required for each case will average four or five thousand.

In treating fibroids of the uterus radiation almost uniformly gives good results. The submucous type, however, are much more responsive to treatment than the subserous. It is my custom to cross-fire all fibroid cases with the combined method, using x-ray with radium.

There are two important contra-indications for the use of radium in these cases—one is if the tumor is palpable above the symphysis and the other is the presence of a pus tube.

Some tumors are highly resistant, while others are remarkably susceptible to radium and experience shows that those that respond most readily to therapeutic efficiency by diminution in size are usually the cellular and rapidly growing tumors, such as the lympho-sarcomas, the embryonal or anaplastic carcinomas, as teratoid carcinoma of the testes or ovary. These tumors melt away rapidly under radium and if we meet with failure it is due usually to wide dissemination of the disease.

Mammary carcinoma of the rapidly growing local metastases type may yield readily to radium whereas the older tumors that have become fibrous may show very little or no reduction in size—after radiation.

There are two chief reasons for failure of radium treatment in malignant disease. The first and foremost lies in the very nature of carcinoma or sarcoma, that is, in the frequent malignant infiltration of the tissues far beyond the area in which radium is effective, or to which radium can be applied.

The second cause of failure lies in the technic, that is, in the methods of applying radium which are entirely inadequate. Frequently the amount of radium is too small. Fifty to two hundred milligrams are essential in dealing with serious malignant conditions.

The distance into the tissues to which radium rays will effectively penetrate is an open question.

Radium in the vagina will fleuroesce a piece of Willemite applied to the abdomen, while photographic plates over the head will be darkened.

This makes a complex problem that is not entirely solved at the present time.

Radium as a post-operative measure is now occupying one of our most important fields. It is, of course, difficult to estimate just how far we can rely on the procedure to prevent a recurrence of a malignant condition but statistics show post operative cases that have had such attention, are remaining well.

Those of us who have been studying the advance made in methods of attack against malignant conditions realize the importance of radium and radium rays and appreciate the accomplishments that have been made during the last five years.

Our combined method of attack is still more noteworthy, but without our supply of radium we would still have definite limitations.

The treatment of malignant conditions by the combined methods, principally radium and x-ray or radium and surgery or with electrothermic methods has been shown from clinical experience to be sound practice.

The general practitioner or the surgeon, who prefers to use his own particular method to the exclusion of all others in treating malignant conditions, is meeting only with limited success. It is impossible, of course, to obtain brilliant results with a single method of attack and the physician who fails to employ the various methods judiciously combined, is refusing to mark time to the march of scientific progress.

As the reports of the results obtained in the treatment of malignancy by radium multiply from many sources, and as the experience of users of radium widens, it becomes apparent that this form of therapeutics is gradually becoming established on a basis which will guarantee its permanency and its substantial progress.

I believe it is highly important for the interests of radium therapy, that the users of radium, the medical profession, and the public should recognize the fact that radium therapy is fast getting beyond the experimental stage.

RETROBULBAR OPTIC NEURITIS, WITH SPECIAL REFERENCE TO BACILLUS SUBTILIS INFECTIONS*

J. SHELDON CLARK, M. D.
FREEPORT, ILL.

In bringing before this Section the subject of acute retrobulbar neuritis, I am conscious of the fact that I have but little to add to the already rather voluminous literature contributed by others. However, the seeming rarity of the causal factor in a recent case prompts me to record my observations and present them at this time.

That the occurrence of this disease is comparatively rare is generally conceded. That its recognition is doubtless sometimes overlooked, or at least delayed until either spontaneous recovery has taken place or irreparable damage has occurred, is well known and regrettable.

As to etiology, Langenbeck made a study of

*Read before Illinois State Medical Society, Section on Eye, Ear, Nose and Throat, Springfield, May 7, 1924.

176 cases of retrobulbar neuritis with the following results:

	Cases	Per Cent
Multiple Sclerosis	58	33
Suspected Sclerosis	14	8
Idiopathic	32	18
Lues	13	7
Post Nasal Sinuses	6	3.5
Hemorrhage (Sudden Loss)	5	3
Menstrual Disorders	4	2.3
Pregnancy	3	1.7
Lactation	3	1.7
Diabetes	4	2.3
Traumatism	4	2.3
Articular Rheumatism	1	.6
Etiology Unknown	36	20

While much has been said regarding sinus disease as an etiologic factor in the causation of retrobulbar neuritis, if we will but study the above table, as given in the report attributed to Langenbeck, we will note that sinus disease comes fifth as a casual factor. By this we do not mean to minimize the importance of sinus disease in a given case, but rather cause us to raise the query and search diligently for the cause in every case at hand. One should not forget that his patient may be a hysteric and yet have a disease entity in addition to his hysteria. That although he be luetic, he still may have a retrobulbar neuritis which has no connection with his lues and which may be caused by a post sinus infection, entirely independent of the lues.

It is well known that uncomplicated cases of retrobulbar neuritis tend to clear up. This fact not alone causes some question to arise as to correct diagnosis, but causes reservation in accrediting the therapy used in a given case. There are, however, a goodly percentage of cases which will not be so fortunate and will go on to optic atrophy if something is not done and that at an early date. Most frequently it is the general practitioner who gets to see these cases first. It behooves one to get at these cases early and with energy run down all the possibilities as to etiology.

J. Von der Hoeve, Arch. Ophth., 51:210, May, 1922, says as to diagnosis the following: "The diagnosis is less or more difficult according to the nerve disease. It may be choked disc, papillitis, atrophy or retrobulbar neuritis. Choked disk and papillitis, though it is not always easy to differentiate one from the other, are relatively easy to recognize, because the ophthalmoscope reveals in the very beginning that something is amiss with the optic nerve. Diagnosis of atrophy is more difficult, at least in the beginning, but the greatest difficulty is caused by the most frequent one, retrobulbar neuritis. The patients complain of pain behind the eyes, in the depth of the orbit, especially upon movements of the eyes. The ophthalmoscope is of only little aid. In the beginning we see either nothing abnormal or a little hyperemia of the disk, dark and strongly filled veins, until at last we find the characteristic pallor of the temporal quadrant of the disk; but then, it is too late."

The best early index is given by an examination of the field. There may be annular scotoma or concentric contraction as symptoms, together with signs characteristic of the disease, central scotoma and enlargement of the blind spot. It is at times quite difficult to distinguish decisively between a case of retrobulbar neuritis and an intra-ocular neuritis. The distinction is at times an arbitrary one. Aside from the visual defects, scotomata and the like, many patients complain of pain back of the eyes, deep in the orbit, or of a general frontal pain. Movements of the eye ball cause distress. The picture one gets from an early ophthalmoscopic examination may be quite negative. There may be a slight hyperemia of the disk, with the veins somewhat engorged. Later slight hemorrhages may make their appearance, with temporal pallor and elevation of the disk as high as 2 to 3 diopters. In order to make an early diagnosis we must take advantage of Von der Hoeve's signs of peripapillary scotoma or distinct enlargement of the blind spot, as well as concentric contractions of the fields.

Retrobulbar neuritis as found in soldiers by K. Szymanowsky, Klin. Monatbl. f. Augenh., 62:631, 1919. Reports are given of five cases of a peculiar form of retrobulbar neuritis in which chronicity was an element. The development being gradual, the patients did not report for treatment until weeks or months after the onset of the first symptoms. The relation of retrobulbar neuritis to sinus disease was marked in these cases and as a cause it was indicated that there might be some connection between the inclement weather conditions and lack of shelter incident to war, which would account for the appearance of these otherwse etiologically unexplained cases of retrobulbar neuritis.

H. Woods, Vir. Med. Monthly, 48:69, May, 1921, speaks of the course of the disease and the search for the cause. In endogenous cases he urges us to remember that the eye is a part of the nervous system. Wassermann tests, both of

the blood and spinal fluid, should be done, especially where blood is negative. Another important line of investigation, according to Woods, should be the determination of the blood coefficient for sugar.

J. W. Jervey, Ann. Otol., Rhin., Laryng., 30:976, Dec., 1921, reports a case of monocular retrobulbar neuritis where antral disease was the causative factor, as shown by the fact that the neuritis began to improve immediately after drainage was established.

In a paper entitled "Optic Nerve and Accessory Sinuses," J. Von der Hoeve, Arch. Ophth., 51:210, May, 1922, says: "Every human being in his turn suffers from catarrh of the nose. Nobody rests free from the nuisance, and every time one has it, the inflammation may be spreading to the accessory sinuses of the nose. That this is true we must admit when we recall the number of acute infections of the various sinuses we have all been called upon to treat, especially since the post influenzal days of 1918."

Von der Hoeve speaks of the close relationship of the sinus cavities to the orbit and says that it is a cause for wonderment that there may still be walking around people who have never had any disease of the eye of nasal origin.

It occurred to me to report my case of double retrobulbar neuritis for the reason that there are certain features which appealed to me as being interesting and worthy of recording. In my reading I have found no report of cases having a similar finding bacteriologically.

My case was that of a woman, 42 years old, wife of a physician, who had in the past enjoyed reasonably good health. Never robust in physique. This illness was ushered in with what was regarded as one of her ordinary "colds in the head." A few days later she was seen by a physician and because of a persistent frontal and supra-orbital headache I was called in to determine if there might be some frontal or ethmo-frontal sinusitis. There was no particular nasal discharge, nor could there be any demonstrated by adrenalin shrinkage and the use of the suction. Transillumination of the sinuses was negative. There was some cessation of the pain following the use of suction and shrinkage of the turbinals, but the patient did not feel well. In about one week's time I was again called to see the patient on account of her almost sudden loss of vision in the left eye and somewhat reduced vision in the right eye. Because of our patient's general condition, being extremely nervous, no examination of fields could be made at this time.

In the left eye, ophthalmoscopic examination revealed a nerve head that was in a marked state of edema. This papilledema was of between two and three diopters, with distended veins, and there could be made out a few minute streaks of hemorrhage in the smaller retinal arteries close to the temporal border of the disk. The temporal half of the disk had the characteristic and well known pallor. In the fellow eye at this time, there was only a suggestion of an involvement. Within 48 hours' time and upon waking in the morning the patient found herself blind in both eyes, with light perception only remaining.

The usual treatment was advised which seems to be common to all in dealing with cases of this sort. Pilocarpine sweats, mercury rubs into the temples, ethmoid drainage as well as spinal drainage was asked for. There was some aversion to the adoption of this treatment and as result counsel was asked for and Dr. George F. Suker was called. Confirmation was made in the diagnosis. Insistence upon hospitalization of the patient, which was concurred in, permitted a more thorough examination and treatment of our patient. X-ray of the head was negative. Blood serum was negative as to Wassermann. Colloidal gold test negative and negative as to tubercle bacilli. The spinal fluid was Wassermann negative, with a cell count of 100. Globulin negative. A gram positive bacillus present, which was identified as B. subtilis. The urine was negative. Repeated specimens of the spinal fluid were sent to two laboratories, one of them the State Laboratory at Springfield, and both reported the finding of B. subtilis. Care was taken against contamination of the specimen.

It was then learned that our patient had been handling a shipment of nursery stock which had been packed in straw and that this work preceded her first attack of rhinitis by but a few days. This gave us a clue as to how our patient had received her bacillus subtilis infection.

The treatment given was that of pilocarpine hydrochlorate sweats every other day lasting for one hour's time. On alternate days and for three seances, spinal puncture in the lower lumbar region was done and 10 to 20 cc. of spinal fluid withdrawn each time. The fluid was clear in appearance, and under no noticeable pressure. Mercury rubs were given in the temple area. Cyanide of mercury injections were given well back on the eye-ball and these were not repeated until reaction had subsided. Strychnine nitrate in gradually increasing dosage was administered hypodermically. Although intra-nasal operation had been suggested, none was performed. Two days after the institution of this vigorous treatment, the patient was able to distinguish large objects in her room and some improvement in light perception occurred in the left eye. The improvement in the vision continued with perfect return. With her correction she now has 20/20 in each eye.

In looking up the literature of the past three or four years, I ran across but one instance of bacillus subtilis infection which had to do in any way with the eye or the orbital structures. This was by Paul J. Steuber in an article entitled "Intra-ocular infection with an organism

of the bacillus subtilis type" and as reported in the Ohio State M.J., 17:175, Mar., 1921, and in brief was as follows:

"This case brings up the question as to whether all cases reported to be anthrax are really such and has led to interesting observations on the bacillus subtilis. The patient was struck in the eye with a fragment of a cold chisel, the fragment perforating the cornea and passing through the iris. He developed a condition which, on the basis of clinical and bacteriological findings, was diagnosed as anthrax by several physicians who had seen cases of this disease. Anthrax serum was given and the patient finally recovered, but it was necessary to eviscerate the contents of the globe. The pathological diagnosis was hemorrhagic panophthalmitis with detachment of all parts, with very little leucocyte reaction excepting in localized areas.

A study of the organism isolated early in the course of the disease by the Bacteriological Laboratory of the University of Michigan led to further discrimination and isolation, and to the conclusion that the organism was a member of the B. subtilis group. Bacteriologically, this organism has certain features very similar to the anthrax bacillus. Clinically, the manifestations are so much in accord with those of an anthrax that those who had seen anthrax previously, corroborated the diagnosis without hesitancy. The subtilis results are very interesting, as they show how this organism, considered to be merely a saprophyte, can act pathologically in a wound. In the interior of the eye the bacillus subtilis increases until after 36 hours, but after 48 hours degeneration sets in and it cannot be found in the vitreous after four days. In cases apparently anthrax, aside from the surgery indicated in the individual case and the use of anti-anthrax serum, an autogenous vaccine is indicated if the offending organism can be isolated."

CONCLUSIONS

While transillumination as well as roentgenography should be made use of early in these cases, yet a negative report of either or both should not deter one in early operation upon infected or closed sinuses.

Diagnosis should be made early. Von der Hoeve's sign should be looked for. The fields should be taken in doubtful cases. As a subjective aid, taken with the other signs and symptoms, one very constant diagnostic point is that the patients complain of retrobulbar pain on moving the eyes. It is therefore by a process of exclusion that we are to arrive at a diagnosis of retrobulbar optic neuritis. As rhinologists and oculists we must ever have in mind the possibility of an ethmoidosphenoiditis as the casual factor.

The bacillus subtilis has been considered nonpathogenic. Our observation in this case would seem to coincide with other observers and tend to prove that such is not the case, especially as regards retrobulbar optic neuritis.

The low virulence of the organism may in part account for the fact that we had a good recovery, despite the fact that treatment was delayed and the possible good which might have been had from a post-nasal operation. We believe that our patient received benefit from the spinal drainage and through the examination of the fluid the organism was recovered that in our opinion caused the neuritis.

THE SELECTION OF CASES FOR COUNTY SANITORIA*

FRED M. MEIXNER, M. D.
PEORIA, ILL.

The title of this paper was suggested by several letters that were received by the writer in the past several years from Superintendents and Medical Directors of County Tuberculosis Sanitaria about to open asking, "What cases should be admitted on opening our Institution?" And thinking that the question must be a rather vital one, I have presumed to take the time to read this paper.

In clinical work the cases of tuberculosis are usually roughly and more or less accurately classified into : 1. Incipient or early, 2. Moderately advanced, and 3. Advanced cases, depending more upon the general physical condition of the patient than upon the lung pathology or symptoms that the patient presents.

The Glackin Law does not say who shall or shall not enter, but simply says, "All citizens of the County are entitled to the benefits of the Sanitorium, etc.," but it does definitely limit the amount of tax to "not to exceed 2 mills on the dollar," so that, even in the wealthiest Counties it would be impossible to provide a bed for every tuberculosis patient in the County, and it becomes necessary to classify the applicants, to receive some and refuse others, and the problem becomes more and more difficult of solution in inverse ratio to the number of beds available and directly as to the number of applicants for the beds.

The first essential in the Sanitorium treatment is to receive into the institution individ-

*Read before the Section on Public Health and Hygiene, Illinois State Medical Society, Springfield, May 7, 1924.

uals that can be benefited by such treatment and to avoid receiving persons who have passed to the stage when relief is not possible, but this rule must be modified at times to suit particular cases.

To limit the work of the sanitorium to caring for incipient and early cases only would defeat a great part of the good work that the institution can do for the population and there is and always will be a demand for admission of advanced cases and even far advanced cases. The field of institutional treatment, though, is very limited in comparison with the whole comprehensive program of tuberculosis therapy, so that in each individual case all the medical, social, legal and public health factors must be carefully evaluated before a case is admitted or rejected and each case must, to a certain extent, be taken on its individual status.

A general rule, however, can be given: Take the cases that can derive the most good from hospitalization considering the sick individual, the family and the community, with the least expenditure of time on the part of the staff and money on the part of the taxpayers. This, of course, means that the early cases that need the rest (and all other essentials of treatment can be reasonably carried out in many homes, but rest, never) should have the preference, as they stay the shortest time, hence more can be taken per bed per year and the percentage of cures is larger, thus elevating the standard of the institution in the estimation of the patients and the community.

However, a chronic or far advanced case may be a menace to a family, to the community, or his symptoms may make institutional care imperative, when a place must be provided.

Frequently County institutions are opened and the favorable class of cases are not as plentiful as they will be later when beds will be at a premium. The taxpayers want to see that the beds are used and at first it is better to fill the beds with all classes of cases, showing that the need was real for the institution and then later the undesirable cases can be eliminated and the cases that cannot be benefited sent home, and the instruction they received will do much in prevention of other cases and the agreeable surprise may await one of seeing a supposedly incurable case improve or get well on sanitorium care. It is not good policy to allow empty beds or soon the taxpayers will stop levying taxes, salaries will have to be reduced, the nursing staff will lose its efficiency and the morale of the whole place will be depressed. On the other hand, if it becomes necessary to turn away a case or two, especially if the patient is a relative or friend of a County Commissioner, or return a chronic or hopeless case to his home to make room for an early case, the cause of the institution will have been augmented.

The overhead cost per patient must be seriously considered and with a small institution is relatively large, as the food, coal and supplies must be purchased in small quantities, by inexperienced buyers and the local merchants will note the absence of outside competition, feeling that county institutions should purchase in the home market, thus adding to the cost. A small institution cannot pay adequate salaries for a superintendent and medical directors and the work is not of large enough scope to attract men who might make tuberculosis their life work and so the small sanitorium has no place in the training of experienced tuberculosis workers. State Sanitoria should be built, as in the State of Kansas, to replace the inefficient, uneconomical and wasteful County Sanitoria and give facilities for training better physicians and nurses in this work. This would allow the money of the counties to be used for nursing and dispensary clinical work.

Special indications for admission are hemorrhage, abscess, lung surgery, pneumothorax and the psychology of certain patients that need to have specialized treatment.

If enough beds are available, every case could be profitably admitted, studied, diagnosed and educated in personal hygiene and then sent home. The County Sanitorium should be as much a diagnostic and consulting station as it is a therapeutic accessory and physicians should feel free to send, and patients should be glad to go, to a County Sanitorium for a definite diagnosis when tuberculosis is suspected. This is one field that our county institutions have not thoroughly covered and one service not thoroughly sold to the physicians and patients of a community. All doubtful cases should be admitted for study and diagnosis, for many a supposed case of tuberculosis, under hospital diagnostic facilities and special treatment is proven to be a foreign body, lung abscess, empyema, etc.

A valuable point not to be missed in considering the admission of late cases is the aspect of family tuberculosis. Several patients in the same family may have acquired tuberculosis from the same source—mother and child or others living in the same home and same environment and it is essential that these contacts be examined to find the early cases. If the institution cares only for early cases, these late cases will not be uncovered and of course the contacts who are infected and should be examined for suspect cases are also overlooked.

In conclusion, the subject may be summarized as follows:

1. A county institution must gain the confidence of the community.

2. The selection of cases calls for good judgment, considering the pathological, social, financial, and moral side of each case.

3. Early cases should, as a rule, have the preference over moderately advanced and advanced cases.

4. An educated and careful consumptive is not a menace to the community and one duty of a county institution is that of instruction in the prevention of tuberculosis.

5. It is better to have one too many "boarders" than to refuse admittance to cases when beds are empty or overlooking a case that needs the help of the sanitorium.

6. The county sanitorium should be the tuberculosis diagnostic station for its community and all doubtful cases should be studied there.

7. The training of tuberculosis workers is a very essential part of the Sanitorium program.

8. In each particular case the best and most complete service must be rendered, based upon the case alone, regardless of the stage of his particular pulmonary disease, for tuberculosis is not alone a medical disease—it is a social disease and the community phase must be viewed as being as important as the medical phase and should be as thoroughly diagnosed and studied and finally, treated.

VARIABLES TO BE CONSIDERED IN SELECTION OF CASES FOR SANITORIA

1. *Patient*
   - (a) Financial condition
   - (b) Stage of disease
   - (c) Prognosis
   - (d) Age
   - (e) Special indications
     - Hemorrhage
     - Abscess
     - Surgery
     - Pneumothorax
   - (f) Mental condition of patient
2. *Family*
   - (a) Contacts
   - (b) Financial status
   - (c) Standing in family—father, mother, brother or sister
   - (d) Tendencies to tuberculosis
   - (e) Social and psychic reaction of case to family
3. *Community*
   - (a) Infectivity
   - (b) Intelligence in care of sputum, coughing, etc.
   - (c) Financial
     - (1) Wage-earner or not
     - (2) Cost of care in Sanitorium vs. home care
     - (3) Overhead of institution
       - (a) County vs. State institution
         - Buying—coal, food, etc.
         - Medical Director cost
         - Training of nurses and physicians
         - Local trading causes added cost
         - Finances diverted from clinical work
     - (4) Taxpayers want to see results
   - (d) Prognosis
     - (1) Early cases — least time, most service per bed
     - (2) Late cases—short time
     - (3) Chronic cases—hold up beds
   - (e) Esprit de corps of Sanitorium Staff
   - (f) Moral obligation to citizens
     - Wage earners to be returned to earning power
     - Mothers to families
     - Optimism produced by cured cases, Psychic effect
     - Decrease in death rate and increased longevity
     - Service to posterity in eliminating tuberculosis deaths
   - (g) Diagnosis. Should be diagnostic station for doubtful cases.

RESPONSIBILITY OF THE COUNTY SECRETARY*

C. H. DIEHL, B. S., M. D.,
EFFINGHAM, ILL.

When the County Secretary has performed the duties prescribed in the by-laws of his Society, is he relieved from further responsibility? No. These things should be done, but there are other things that should not be left undone.

The Medical Society should be a guiding star to its county. To be members it should mean that the physicians are ethical and efficient; that they are banded together for their mutual good, to give and take, to teach and learn the things that will help them in their profession. Membership should mean this, not only to the members but to the people of the community. They should know that a physician who is a member of a medical society is not an unlicensed quack or an unscrupulous faker, but that he is honest and progressive and one in whom they may put their trust. When the Secretary has achieved this we may relieve him of responsibility along this line.

The County Medical Society is responsible to the State Medical Society and to the American Medical Association in that it should cooperate with them and keep in touch with their activities.

At the annual meeting of the American Medical Association in St. Louis, 1922, the House of Delegates adopted resolutions asking the county medical societies to make public the fact that their members were ready to make physical examinations of the apparently healthy. They also stated that it was up to the Secretaries to put this movement over.

What have medical societies done along this line? Do they see the advantage of these examinations? Advantage to both physician and patient? The laity are learning that by the detection and removal of slight defects they will escape serious illness and they are glad to avail themselves of these examinations. Surely the physician would prefer to examine a patient in his office at his convenience rather than be called some dark and stormy night to alleviate some acute condition that might have been prevented.

It is neither safe nor wise to underestimate the degree to which the public is informed on the subject of disease prevention. Newspapers print health columns every day and magazines of all kinds publish articles advocating the prevention of disease. This is not done as missionary work but to meet a public demand.

The trend of the practice of medicine is changing and the physician needs to change with it. The discovery of the cause of many diseases, the finding of the principles of immunology with their effect on the course and termination of disease and the revelation of the fact that some diseases can be prevented easier than they can be cured are the scientific basis of preventive medicine.

One of the greatest lessons taught us by the late War was that disease can be controlled by applied health measures. We were unpleasantly surprised at the number of our young men who were found unfit for service. A very large per cent of the defects were such as might have been prevented by proper health measures. Many were the aftermath of so-called childhood diseases. Perhaps their mothers thought that the sooner the children had the measles, whooping cough and scarlet fever, the better, so that they would be done with it, not realizing that, while the child recovered apparently, there was left a weakness in some part of the body that would develop into a serious or perhaps fatal condition later.

During the War the successful prevention of typhoid dysentery, cholera and smallpox proved the worth of vaccines. The value of prophylaxis against tetanus was realized as never before. Since then, the health departments, federal, state and municipal, have profited by the lessons learned during the war. Hundreds of adults have had physical examinations made and school children have been inspected by the wholesale. Health measures are being taught in the schools. A new field has opened for the county societies and a new responsibility given to the secretaries.

Another very important thing for our secretaries to do is to correct the erroneous idea that "State Medicine" and Public Health are the same thing. However undesirable State Medicine may be, antagonism toward it should not extend to the Department of Public Health, which stands as a friend in all health conditions to everybody in the state. The motto of the Illinois Department of Public Health is "Prevent Disease, Promote Health, and Conserve Life." Its mission is to help physicians accomplish this. It stands ready at all times to come to their assistance

*Read before the Secretaries' Conference, Illinois State Medical Society, Springfield, May 6, 1924.

when called. It helps them in combating epidemics of communicable diseases. It sends trained men to help them in diagnosis of doubtful or puzzling cases—but they *do not treat.*

The Department of Public Health has at the disposal of its physicians, laboratories, sanitary engineers, quarantine officers and specialists on tuberculosis, social hygiene and communicable diseases. It furnishes free antitoxin and vaccines of different kinds, the Schick test and, when so desired, will send someone to demonstrate the technique of its administration.

Many health officials in villages and rural communities are laymen who have had no experience in health or quarantine work. The Department of Public Health instructs them in their duties and familiarizes them with the required rules and regulations so that they may be able to cooperate with and render valuable assistance to the physician.

The closer the physicians keep in touch with the activities of the Department of Public Health the more the physicians will appreciate it. Where they treated a State Health Officer with scant courtesy a few years ago, they now give him the glad hand when he comes, and send for him when he does not come. The more cooperation the Department receives, the more effectively it can perform its mission, the more service it can be to the people and to the physicians.

The general public, in fact the civilized world, has caught a vision of what can be accomplished by the practice of preventive medicine. The medical societies should be at the head of this great movement. If the profession does not assum leadership, other agencies will. If the laity are allowed to lead, "State Medicine" might develop. Under the leadership of medical societies preventive medicine offers one of the greatest boons that civilization has ever known. Secretaries have no greater responsibility today than to see that their societies hold front rank in this great work.

The principles of our Government can be summed up into one word, "Protection." The need of adequate health protection is becoming a generally accepted fact. The latest activity along this line is the organization of "County Health Units." This has already become a reality in some of our down state counties. Invariably the county medical society, through its secretary, has been a potent factor in organizing these health units.

Let the secretary of the county medical society add to his numerous responsibilities that of bringing about better reciprocity between the Department of Public Health and the medical profession. When each respects and admires the work of the other and extends to each other the hand of good fellowship, then even closer cooperation and more splendid results will follow, to the everlasting credit of each and to the benefit of a world which now, more than ever, needs the best that each can give.

DISCUSSION

DR. R. O. HAWTHORNE (Monticello): Dr. Diehl made a comment about the action that was taken in St. Louis at the American Medical Association meeting,—that the County Medical Society should get back of and give free examination to anybody they didn't find anything wrong with, regardless of their financial condition. Did I understand the Doctor correctly?

DR. HERMAN H. COLE (Springfield): I want to compliment the Doctor on that paper. I think that subject, particularly the co-operation of the County Society with the extra-governmental and departmental health agencies of the county, is a very important matter.

I also feel that, as he said in the first part of his paper, the County Secretary has a great deal to do with the medical situation in the country. I might, if you will pardon me for a moment, quote Sangamon County in the past five years since I have been in Springfield. We began at that time with a society of about 90 members, which was not nearly as many as there should have been at the Society meetings at that time. We had our meeting every two weeks, and at those bi-monthly meetings there was usually a feed at the hotel, of sandwiches and coffee, and in practically every case some out-of-town man gave a paper, or some man whom the most of us were thoroughly familiar with.

The Country records during the three years that practice was in vogue were kept practically not at all. I do not know just why that occurred. I do not think it was due to any particular lack of interest or work on the part of the Secretary at that time—it was simply a matter of no organization of a County Society office.

We had no permanent records, no provisions for printing, no provisions for the outside man who came in except as it was taken up by each individual man. Two years ago we made a rather marked change; Dr. Patton was President at that time. The same policy has been carried out by Dr. Deal this year as President of the Society, with some major changes which I think are of considerale importance. We changed our meeting to once a month; it is about as often as most of the Societies can get a good turn-

out. At that monthly meeting we gave up the feed and devoted the whole evening to medical program; in other words, we dropped all the little discussions which have a good deal of personal element in them and brought only those things before the Society which had a distinct Society element in them. That program was carried out all of last year and our membership jumped perhaps 10 per cent. We got more members into the Society and quite a number of old men who had dropped their membership came back.

At the end of the year we put in a book system—a system of loose leaf secretary's books in which the records of each meeting were put, and we have a record over a period of as many years as we choose to carry it.

At the beginning of this year Dr. Deal and a number of the members got together and made up a plan of clinics and meetings for this year which we called The Sangamon County Clinical Association, which was put up as an entirely separate matter from the Society and afterwards to be linked with it. The essential point in the formation of that society was that the medical part of the program of the Sangamon County Medical Society was to be held during the day with the Sangamon County meeting in the evening. That clinic, I believe, has been the biggest thing the Sangamon County Medical Society has put over, and I think the credit is due to Dr. Don Deal of this city.

We made the provision in the organization of the clinic that the society should be divided into two parts. Arbitrarily we divided it at the M's, and we found that the doctors whose names began with the letter before M gave the first all day clinic, with the second group coming on the following month; this gave two months between each group. That clinic starts at 9 o'clock in the morning, with an entire day's program, take the morning at St. John's Hospital and the afternoon at Springfield Hospital, or vice versa, a lunch at the hospital—makes no difference which one—we have a whole program of clinics (that is, the real thing, not papers); patients are brought in and shown; the morning we spend in operative surgery; afternoons we have medical clinics and results of operations; in the evening we have two papers, one by an outside physician, usually a pretty good paper by a well known man; then we usually have some sort of a paper by a layman on some subject which touches on public health or the medical profession from the legal or other standpoint.

Our membership this year has jumped to nearly 120 as a result of this. We have only had four clinics and in those clinics we have had an average of between 10 and 20 outside men in the city for the whole day.

The biggest thing that the Association has done for us is to show the local men what they can do. I voice the general opinion, I think, when I say it has been a considerable surprise to every one of us that we have had men in our midst who could do things that none of us knew they could do. We have seen a number of remarkable operations and results of operations. I think some of them cannot be duplicated, even by the best surgeons in the East. I feel this clinic has been one of the best things that Sangamon County has ever put over, and I make it as a suggestion that anyone interested in the manner of that clinic, if they care to write to Dr. Deal or myself, then can have a copy of the organization of it. I feel that anyone else who has a society would be doing the Society and the community a favor if they copy that program, and we would be very glad to help you in any way we can.

It simply illustrates the difference in the attitude that the profession will take toward the County Medical Society when they get something that really is given out. Some of the men on the program have spent weeks in preparing lantern slides and papers, and you all know the man who prepares the paper is the man who gets the good of it. I feel the Medical Profession here has gained something very distinctly in the organization of this clinic.

DR. J. S. TEMPLETON, Pinckneyville: That report was very interesting and I think many of you have received copies of the clinics as they have given them from time to time.

Of course, that entails money and another well organized force to get it out, and some of us especially have a hard time to get the $5 for the State dues. We will hear more about that later, I am sure.

DR. HAROLD SWANBERG, Quincy: If it is permissible I would like to ask a question of Dr. Cole.

In Adams County we have made several attempts to put over a monthly clinical program as outlined by Dr. Cole. The difficulty as we have found it is the lack of interest in the thing among the men themselves. There is always a small group willing, but men who do not do much referred work seem prejudiced against it, and especially the country practitioner. They do not see why they should be taxed for something that they will not be distinctly benefited by and in which they do not care to participate.

I would like to know more about the monthly clinical programs because we are going to make another attempt to put something over like that in our county and intend to keep at it until we succeed. I would like to know how to overcome the above arguments, how the finances of such a program are met, and whether or not separate By-Laws have been drawn up or whether the clinical meeting is an intimate part of the County Medical Society.

DR. C. G. APPELLE, Champaign: Dr. Diehl's paper is so magnificent that I was wondering if I could ever produce a paper of that sort.

Dr. Cole turned the discussion into a sort of mutual admiration society, and I was very much impressed with what he had to say, because I think everywhere we are trying to have more get-together meetings and better mutual understanding, more exchange of ideas, and I think he is correct when he says we find out that our neighbors next door have not been given credit for what they know.

Over in Champaign County we assess the great rate of $10, and of course we donate to the State Medical Society the usual quota and try to have enough money

to have at least one large meeting. It has been the practice to have a biennial meeting with the Vermilion County Medical Society; one year one entertains and the next year the reverse. Those meetings are always very well attended, and included on the program is a speaker from out of town, of some considerable note. It has always been very interesting, and this year we are planning on making the meeting even larger. We are planning on having a speaker of National note or even International, and we will probably attempt to stage a so-called clinic there. I see no reason why we couldn't do it. I might say here that, imagining that you have to live in Springfield or Bloomington or Cairo or St. Louis or Chicago in order to stage a clinic or give a proper presentation of a case is all wrong.

This applies to even the smaller country Societies thinking they are missing the opportunity of their lives if they don't even prepare papers. They have to write out of a book, a lot of them, certainly, but they can weave in a lot of their own experiences.

On May 27, Champaign County Medical Society has obligated itself to entertain the President of the American Medical Association. The President of the American Medical Association has some friends in Champaign he is coming to visit, and so we thought we ought to do something to show our appreciation of his honorable position. We are planning a banquet providing plates for about 250—it is an entirely free donation—and we have arranged to have certain notables throughout the state as guests of honor, and the rest of the rabble, like Hawthorne and myself, down below.

DR. HERMAN H. COLE: All I wanted to say was, this is not a Springfield matter at all. It is a County matter; it goes to a number of the towns that are adjoining Springfield, smaller towns, but have just as good men as Springfield; some of our best cases have come from a so-called country practitioner.

Those men have participated in the presentation of cases in a percentage way even better than Springfield men. One or two very unusual cases we have had shown here were from out of town; that is, from the districts where the unusual things arise.

Financially, I don't know just how big a society would have to be in order to make such a thing possible, but I do know that last year we finished on the $10 basis; that covers not only the State Society, but the local Society as well, and we finished the year with $400 in the treasury, and this year I think it will probably be $800 or $900. So, financially, it hasn't been a great burden, and we will have enough in the treasury to help quite a little.

It costs us about $10 a month to operate the clinics—that is the $10 toward the programs, etc., as an average, and financing it hasn't been a difficult matter.

DR. C. H. DIEHL, Effingham, Ill. (closing the discussion): It seems to be agreed that we should do all we can to cooperate; the Medical Society wants to cooperate with the Department of Public Health and they want to cooperate with the Medical Society. We know this is a time of organization and cooperation.

Dr. Hawthorne, I believe, misunderstood me at first; he thought that the clinics recommended by the American Medical Association were free and said if they were free they would be looked upon as quackery. I did not mention anything about their being free. The Medical profession is always ready to do their part in any community, always ready to help the poor, but I feel that in many cases the profession is not paid enough for what they do.

I don't know that there was any question brought up for discussion. I am glad you all agreed upon this without any controversy.

PEPTIC ULCER COMPLICATING PULMONARY TUBERCULOSIS*

JACOB MEYER, M. D.,

Associate Attending Physician, Mt. Sinai Hospital, Adjunct Attending Physician, Michael Reese Hospital Instructor in Medicine, University of Illinois. From the Gastro-Intestinal Clinic of the Michael Reese Dispensary.

CHICAGO

The association of gastric symptoms in early and advanced pulmonary tuberculosis is well known to clinicians. It has been generally accepted that the gastric disturbances are not due to local changes in the stomach. Thus Osler [1] says "while tuberculous ulcer of the stomach is rare, ulceration may occur as an accidental complication—interstitial and parenchymatous changes in the mucosa are common and lead to atrophy but these cannot always be connected with the symptoms and they may be found when not expected. On the other hand when gastric symptoms are pronounced the mucosa may show little change."

The gastric symptoms often described as an early dyspepsia or anorexia may continue and are often encountered as a severe condition with epigastric pain, nausea and vomiting. Fishberg [2] says of the gastric symptoms in advanced cases of pulmonary tuberculosis—"at times we meet with patients who retain an excellent appetite to the end and cases of bulimia are not uncommon. Pain after eating, pyrosis, belching, are very common and vomiting is at times a prominent symptom. But while the emetic cough may be encountered at this stage it is not of this type. They simply vomit because of the gastritis and dilatation. This type of vomiting is preceded by nausea and belching." This picture on closer analysis presents a striking similarity to that seen in gastric and duodenal ulcer. The possibility that such lesions may

*Read before the Chicago Tuberculosis Society, April 10, 1924.

account for the gastric symptomatology in certain cases of pulmonary tuberculosis occurred to me. Through the co-operation of the tuberculosis department fifty cases of pulmonary tuberculosis with severe gastric symptoms were referred for study. Of these, six were considered as having a definite ulcer story of which four were positively diagnosed as duodenal ulcer and two as suspect peptic ulcer.

CASE REPORTS.

Case 1. M. L., male, was first seen in Michael Reese Medical Dispensary in 1916. Complained of cough, loss of appetite. Physical findings showed evidence of bilateral pulmonary tuberculosis. The sputum was positive. Patient was transferred to Oak Forest Sanitarium. From August, 1919, to the latter part of 1921 he was again treated at the Michael Reese Dispensary for his pulmonary condition. In May, 1922, patient was referred from the tuberculosis department to the gastro-intestinal clinic. The story obtained was that about June, 1922, he was suddenly seized with abdominal pain, located over the epigastrium. He immediately vomited about three glasses of dark blood and was soon after taken to the Cook County Hospital. He remained there for a period of two weeks and received treatment which consisted of milk, cream and powders. He then went home; felt better for a week and then noticed definite epigastric pain and burning about two hours after every meal. The pain occurred regularly daily and was so severe that he had been abstaining from all food. Physical examination revealed a poorly nourished individual. The lungs showed definite evidence of bilateral pulmonary tuberculosis. Locally the abdomen was extremely tender in the epigastrium. The liver and spleen were negative. Laboratory examination showed no striking changes. The Ewald meal—free acid 24 and total of 84. Blood was not found in the stomach contents nor in stool on first examination but was found two months after admission to the dispensary. An X-ray examination showed a constant duodenal defect. The patient was placed under ulcer management and showed relief of symptoms. After a period of two months he complained of severe night pain. He was sent to Michael Reese Hospital where he was kept under treatment for gastric ulcer and the findings of the dispensary clinic confirmed.

Case 2. J. W., male, aged 50, first admitted to General Medical Clinic in September, 1916, complaining of epigastric pains and severe "belt pain." No diagnosis was made and the patient returned again with similar complaint in January, 1921. In July, 1923, patient returned to the tuberculosis clinic complaining that he had been ailing for the past three years and gave a history of severe pulmonary hemorrhage. He also complained of coughs, night-sweats, hoarseness, weakness, loss in weight and stated that he occasionally had stomach trouble. Physical examination revealed a poorly nourished man who showed a bilateral involvment of the upper lobes with many diffuse rales and impaired apical resonance. Sputum was negative for tubercle bacilli. He was refferred to the gastro-intestinal clinic because of persistent epigastric pain and inability to take food. The story now obtained was that he had pain in the epigastrium which came regularly two or three hours after meals, accompanied with belching and at times vomiting. Cough was not related to vomiting. He had had this condition for the past nine years. It occurred at intervals of five or six months, then was relieved, and then the symptoms recurred. At the present time he has the same complaint as previously. He has no night pain, has lost weight and feels well on a soft bland diet. The physical examination confirmed the findings of the tuberculosis clinic. The abdominal findings were localized to tenderness in the epigastrium. Ewald meal—free HCl 31—total 46. Stools showed a trace of blood. Fluoroscopic examination revealed bilateral apical involvment. Fluoroscopic of stomach revealed a definite duodenal defect. Diagnosis, duodenal ulcer.

Fig. 1, Case 2, Showing Defective Duodenal Bulb.

Case 3. A. F., male, admitted to Tuberculosis Dispensary, December 14, 1922, complained of cough, expectoration, loss of weight and weakness. He had no other complaints except "stomach trouble" and stated he had had stomach trouble seven years previously. Physical findings were those of bilateral pulmonary tuberculosis and patient was referred to the Winfield Tuberculosis Sanitarium December 23, 1922. Five months later he was referred to the gastro-intestinal clinic where the following history was obtained. He had been ill with "stomach trouble" periodically for the past five years and had complained of pain across the upper abdomen, diarrhea and anorexia. At the time of admission to the gastro-intestinal clinic he had complained of cramp-like pain about one hour after breakfast, lunch and supper. There was no nausea, no loss of weight and no jaundice. The pain had begun

in the right upper abdomen and traversed to left side. Occasionally he had several stools a day. Physical examination showed a bilateral apical involvment. The colon and sigmoid were tender on palpation. Laboratory studies revealed: Ewald—Free HCl 24.3, T. 45.9, fluoroscopic of gastro-intestinal tract showed a definitely deformed duodenal bulb. Diagnosis, duodenal ulcer.

Case 4. A. S., female, aged 40 years, first seen in gastro-intestinal clinic June, 1922. About 1910 the patient had a severe "grippe" which did not clear up. For two years thereafter she states she was under observation at the Phipps Institute for Tuberculosis and received treatments with tuberculin. She says her sputum has never been positive. When admitted to

Fig. 2, Case 2, Bilateral Pulmonary Tuberculosis.

the gastro-intestinal clinic she complained of severe epigastric pain, and "burning" after eating, shortness of breath and weakness. About three weeks previously the patient suddenly vomited about two glassfuls of bright red blood and felt weak. Five years previously the patient also vomited a great quantity of blood, felt weak and passed tarry stools. She was admitted to the Hebrew Hospital of Brooklyn. During the entire period of five years she has had no complaints except occasional fullness in the epigastrium. For relief she has habitually taken sodium bicarbonate. She has found that she is much more comfortable on a soft diet. Physical examination, June, 1922, revealed a dyspneic, anemic woman about 40 years old. The lungs showed impaired resonance over left upper lobe and many fine rales. There was evidence of a right sided pleurisy. Abdominal findings were negative. Patient refused hospitalization but was kept under observation and treatment at the dispensary with the tentative diagnosis of gastric ulcer. She was seen constantly until September, 1922, and improved on ulcer management. January, 1923, the patient returned to the dispensary with recurrence of the symptoms but this time she complained of more severe epigastric distress after meals. She again gave a history of vomiting blood, also pain in the gallbladder region. She was kept under observation in the dispensary for a period of about three months on ulcer management. In September, 1923—nine months later—she appeared with a story of epigastric distress after meals, belching, pain after eating. Transferred to the Michael Reese Hospital, where a similar diagnosis of duodenal ulcer was made. X-ray plates show a constant duodenal defect. Laboratory study—Ewald Amt. 158 cc., free acid 24—total 74.

In addition to these cases reported we have records of two cases of pulmonary tuberculosis with a typical history of gastric ulcer. A positive diagnosis of ulcer, however, is withheld principally because we were unable to find x-ray confirmation of our clinical opinion.

DISCUSSION

Gastro-enterologists have repeatedly stressed the importance of a careful history in the diagnosis of gastric or duodenal ulcer. Characteristic of ulcer is a periodic recurrence of the gastric distress over a period of years, a distress after food intake, yet relieved by alkalies or soft food. A careful inquiry into the story of a gastric discomfort in a tuberculosis patient may serve to elicit such a picture. In all the cases presented as ulcer in this study, a careful study of the history showed an almost characteristic picture.

Tuberculosis individuals, however, are so prone to develop many neuroses that the clinician must be on guard to exclude these in the diagnosis. Dispensary patients particularly exhibit a train of gastric symptoms which may simulate ulcer, yet which upon careful analysis together with the social service workers may be found to be "reactions" to individual social problems. It is because of such factors which may complicate the diagnosis that we have rather emphasized the importance of fluoroscopic and x-ray findings in the positive diagnosis. Of the four cases presented as positive ulcer, we have in addition to the positive x-ray findings a typical story and clinical picture in each instance. Two other cases which gave typical story of ulcer showed no positive x-ray findings. It is recognized that x-ray evidence is not to be considered as the sole criterion of the presence or absence of ulcer. Clinic-

ally and therapeutically one must consider such cases as ulcer. It is our opinion that the practitioner will do well to follow strict ulcer therapy in all cases of tuberculosis which present a story simulating ulcer.

The value of gastric analysis as an aid in the diagnosis of gastric ulcer is being very much questioned in view of the variety of results obtained. The analyses of gastric secretion in pulmonary tuberculosis have yielded such varying figures that it is questionable how much diagnostic importance can be attached to hyperacidity as a diagnostic aid in ulcer. Thus Fox quotes Fenwick [3] who found hyperacidity in 56 per cent of 200 cases. Einhorn [4] found normal secretion in 5 cases, hypersecretion in 5 and subacidity in 5. Büger [5] found in moderate cases the secretion normal in 33 per cent, reduced in 60 per cent and absent in 6.6 per cent. Croner [6] studied thirty-six cases and found the total acid varied from 21-80 except in two cases where there was a complete failure. Haym reports that of 80 cases, 15 showed hyperacidity and 33 hypoacidity. Mohler [7] and Funk as a result of studies by means of Rehfuss fractional method conclude that they do not believe that there is an irritative stage giving rise to hyperacidity. They are of the opinion that the gastric disorder is due to a disease of the mucosa. In the four cases presented, the degree of free and total acidity when examined for each case shows no variation from the normal range. However, it is a striking feature that the acidity was higher in these cases in which a positive diagnosis of ulcer was reached and in one of the cases of suspected ulcer, than in 12 other cases of pulmonary tuberculosis with gastric symptoms in which the diagnosis of ulcer was not made. (See Table.)

Blood in the stomach contents was noted in one of the cases reported and in two cases a history of vomiting of blood was obtained.

While gastric hemorrhage is important in diagnosis of ulcer one must exclude the lungs as the source of the blood. This may at times be very difficult, particularly if the patient is not seen at the time of the hemorrhage. Where a reliable and intelligent history is available the problem is not difficult for in such cases a story of gastric discomfort—the dark brown blood point to gastric hemorrhage; if further a story or evidence of tarry stools is obtained, gastric ulcer is also more certain. In two cases we have such findings.

Boas [8] quotes Struppler as speaking of the possibility of making a diagnosis of tuberculous ulcer of the stomach in an individual with pulmonary tuberculosis who suddenly develops exquisite gastric symptoms, vomiting of blood, belching and epigastric pain. The first case, M. L., presents a picture similar to this.

Attention is also directed to the recent observations of Schwatt [9] who has recorded duodenal ulcers postmortem in tuberculosis of the intestines. He does not state whether these are simple or tuberculous ulcers. This report should lend weight to our clinical observations, because of the changes in our conception as to the relative frequency of duodenal and gastric ulcer. At present the frequency of duodenal ulcer is recognized. May we not assume that some of the patients with pulmonary tuberculosis who present characteristic symptoms of ulcer, are actually suffering from duodenal ulcer, which may or may not be tuberculous in character?

The present study is of interest also as suggesting clinical evidence for the etiology of chronic gastric ulcer. In 1912 Rosles [10] called attention to the fact that peptic ulcer was not a disease per se, but a part of systemic disease and supported his opinion by means of post morten studies. Ivy [11] has shown that the ideal conditions for the experimental production of a chronic gastric ulcer in animals depends on, 1. a temporary lowered body resistance; and 2. a temporary pathologic mucous membrane manifested by hypoacidity or achylia. Doctor Ivy found that it was possible to delay the healing of acute lesions of the gastric mucosa in animals which were diseased or cachectic, and which showed no free acid in their gastric juice. In case of pulmonary tuberculosis, we have duplications of the conditions set forth by Ivy as conducive to the formation of chronic ulcer. An analysis of our series of cases show that in two patients gastric symptoms proceeded the pulmonary lesions, and subsequently the gastric symptoms recurred and persisted. It is not of great importance whether gastric symptomatology preceding the clinical evidence of pulmonary lesions, is due to a tuberculous toxemia or a definite lesion of the mucosa. Assuming a preexisting erosion of ulceration of the gastric mucosa from whatever cause, the advent or association of a pulmonary tuberculosis may be considered as the reason for the delay in healing of

such a lesion. It is further conceivable that individuals with tuberculosis may suffer the same type of infections, focal or otherwise and be subjected therefore to the same possibilities of peptic ulcer as any other individual.

SUMMARY

1. Four cases of peptic ulcer complicating pulmonary tuberculosis are reported.

2. Attention is directed to the importance of a careful analysis of the history in all cases of pulmonary tuberculosis with chronic gastric symptoms.

3. The frequency of ulcer in this series of cases suggests that gastro-intestinal symptoms associated with pulmonary tuberculosis, should be differentiated from a complicating peptic ulcer.

4. Cases simulating ulcer should be placed on medical ulcer therapy.

5. The suggestion is offered that tuberculosis may not only predispose an individual to peptic ulcer, but that such ulcers when formed are more likely to become chronic.

I wish to thank Doctor Leon Bloch for his suggestions and criticisms in the presentation of these cases.

25 E. Washington St.

TABLE

Case	Free Acid	Total Acid	Diagnosis
C	15	36	Pulm. T. B. Colitis
D	22	74	Pulm. T. B. Constipation
E	7	16	Healed Pulm. T. B. Spastic Constipation
F	70	106	Pulm. T. B. Suspect Ulcer
G	13	35	Pulm. T. B. Spastic Constipation
H	4	56	Pulm. T. B. No diagnosis
J	0	20	Pulm. T. B. onstipation
K	0	10	Pulm. T. B. No diagnosis
L	3	20	Pulm. T. B. Constipation
M	11	42	Pulm. T. B. Chronic Cholecystitis
O	12	23	Pulm. T. B. Constipation
S	18	34	Pulm. T. B. Constipation
U	18	36	Pulm. T. B. Colitis
V	24	84	Pulm. T. B. Ulcer Duodenal
W	31	46	Pulm. T. B. Ulcer Duodenal
X	24	45	Pulm. T. B. Ulcer Duodenal
Z	24	74	Pulm. T. B. Ulcer Duodenal

BIBLIOGRAPHY

1. Osler: The Principles and Practice of Medicine, 8th Ed. 1914.
2. Fishberg: Pulmonary Tuberculosis, 1919, p. 225.
3. Loc. cit. Klebs. Tuberculosis.
4. Einhorn: Diseases of Stomach, 1911, 5th Ed.
5. Bueger: Deutch. Med. Woch. 1889, XV, 269.
6. Croner: Deutch. Med. Woch. 1898, XXIV, 757.
7. Mohler and Funk: Am. Jour. Med. Scie., Vol. CLII 1916, p. 835.
8. Boas: Diag. u. Therap. der magenkrankheiten Liep., 1920.
9. Schwatt: Am. Rev. of Tuberculosis. Vol. 8, Sept., 1923.
10. Rosles: Quoted by Boas.
11. Ivy, A. C. Arch. Int. Med. 25, 6, 1920, J. Am. Med. Assn., 647, 1920, p. 1543.

MEDICO-LEGAL VALUE OF X-RAY DIAGNOSIS IN FRACTURES*

HAROLD SWANBERG, B.Sc., M.D.
Roentgenologist to St. Mary's Hospital and Blessing Hospital Quincy.
QUINCY, ILL.

It is hardly necessary to dwell on the value of x-rays in the diagnosis of fractures and dislocations for it is so obvious. Yet some physicians even in this enlightened day still persist in "taking a chance" in their fracture cases and seldom have an x-ray made which can be compared to those who still rely on using a candle for illumination when electric current is available. Insurance companies in compensation cases are continually urging physicians to be sure to have x-rays made of all suspected fractures. *An x-ray in a fracture case is one of the best preventives for a mal-practice suit. In fact it has been repeatedly established by courts in recent years that the failure of the physician to have an x-ray made in a fracture is considered evidence of negligence.* In other words, an x-ray examination in a fracture case is considered the ordinary care and skill every physician should give his patient.

While the percentage of mal-practice suits based upon bad results in fractures is not known it probably forms the basis of more suits than any other condition. Practically all this could be avoided by the judicious use of the x-rays in these cases. The expense of x-ray examinations in fractures has been so greatly reduced in recent years because of more efficient apparatus, etc., that the method is now within the reach of nearly everyone. The only safe plan for the physician is to insist upon an x-ray in every fracture case and if the patient refuses to consent to the examination the blame then rests upon the patient and not the physician. In fracture cases however, it is very important to be sure to have a roentgenogram taken after the re-

*Read before the Pike County Medical Society, Pittsfield Ill., April 24, 1924.

duction has been made and the splints applied.

The following legal opinions, recently rendered in fracture and dislocation cases, may be of interest to the general practitioner:

The following case was decided in favor of the plaintiff in the Supreme Court of Minnesota: "The plaintiff fractured both bones of his right leg a few inches above the ankle. He was taken to a hospital and his employer called the defendant, who attended him. Immediately, a cast was placed on the leg by the defendant, who attended the plaintiff for about two months, when the last cast was removed. Then, and at a previous time when the leg was bared, the plaintiff called the defendant's attention to a lump at the place of fracture, but was assured that it would disappear within two years. The plaintiff was not satisfied, and complained to his employer, who sent him to another physician. The latter advised an immediate operation by breaking and resetting the fractures. This was done, and in about six months thereafter there was a serviceable leg. The evidence indicated that the fracture of the tibia was oblique. Good surgery required care in so setting and holding the bone that the broken ends would be likely to remain in apposition. *Negligence in respect thereto was charged against the defendant, particularly in that he took no roentgenograms to aid in the diagnosis of the fracture or in ascertaining its condition during the curative process;* he did not make use of a fracture box; the casts put on did not extend above the knee, and he did not use extension weights. The plaintiff recovered a verdict against the defendant for $3,500 which by the plaintiff's consent was reduced to $1,800 as the alternative of having a new trial granted."[1]

The following case was decided in favor of the plaintiff in the Court of Appeals of Kentucky: "In affirming a judgment for $4,000 damages in favor of the plaintiff the court stated that he sustained a simple backward dislocation of his right elbow joint. He called the defendant, who arrived within an hour and a quarter, to take charge of the case. An anesthetic was administered, and it was thought reduction was made. No roentgenogram was made at the instance of the defendant, but the plaintiff had one made about a month after the injury, which showed that the dislocation was not reduced. An anesthetic was administered, and three physicians with a nurse manipulated the arm and resorted to and applied the well-recognized and known methods usually employed to produce success. About two weeks later, the plaintiff had an operation performed by another physician which left but little motion in the joint, and partially paralyzed fingers, although the operation was not at all criticized. The defendant contended that he was not negligent in failing properly to diagnose the case, or in failing to reduce the dislocation on his first visit on account of the swollen condition, but that such was the condition was contradicted, and necessarily formed an issue for the determination of the injury. *One could not read the record without being forced to the conclusion that the defendant was negligent in at least the one particular of not sooner making a roentgenogram of the elbow so as to enable him better to treat it thereafter."*[2]

A few years ago in England one of the higher courts affirmed a judgment against a physician for $7,500 in a fracture case. In this case the patient sustained a hip fracture and was removed to a hospital. An x-ray examination was contemplated but the hospital apparatus was out of order at the time. Under the circumstances the hip was treated as well as could be but resulted in considerable deformity, which formed the basis of the suit. The plaintiff emphasized that no x-ray had been made and the court in deciding against the defendant did so largely on the ground that the defendant failed to remove the patient to another hospital in the same city where the x-ray apparatus was in good running order, so an x-ray examination could have been made.

Numbers of other instances could be sighted where the failure of the physician to have an x-ray examination made has formed the chief basis for a lawsuit. However, the above few cases are enough to warn the physician to ever be on his guard in his fracture work and to insist upon a roentgen examination in every case in which the least doubt is present as to whether or not a fracture is present. Such a plan is the best possible insurance against mal-practice suits in fracture work.

731 Hampshire St.

BIBLIOGRAPHY

1. J. A. M. A. 80: 1095, April 14, 1923.
2. J. A. M. A. 81: 327, July 28, 1923.

A REVIEW OF THYROGLOSSAL DUCT ANOMALIES WITH A REPORT OF THREE CASES

LAWRENCE J. LAWSON, M. D.
EVANSTON, ILLINOIS

In presenting a case of persistent thyroglossal duct before a clinic I was impressed with the fact that although the subject is covered in available medical literature such cases are relatively rare and an occasional review may sharpen our diagnostic sense.

CASES

No. 1. A young man 23 years of age presented himself for examination, complaining that his tongue felt very thick and stiff, that he had developed a very bitter taste in his mouth, and that he had a "hole" in his neck from which came "yellow, stringy pus." He had a chronic suppurative otitis media and had decided that he had developed an abscess in his neck from it. Four centimeters above the suprasternal notch and one centimeter to the right of the midline was the opening of a fistulous tract. Upon protrusion of the tongue or in swallowing this opening was drawn upward as if by a cord. Massage upward of the tract accentuated the bitter taste, and downward massage yielded a few drops of yellowish, mucoid secretion. There were no signs of active inflammation.

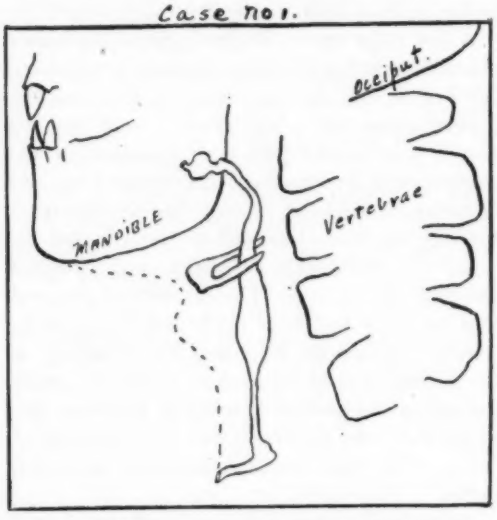

Fig. 1.—Diagram of roentgenogram findings after injection of barium solution showing the origin of the tube at the foramen cecum, the passage between the rami of the hyoid bone, the dilatation from retention of secretion, and the fistulous exist on the neck.

Under the direction of a competent roentgenologist a barium solution was injected into the external opening under a slight pressure until there were positive evidences of its appearance in the mouth. Roentgenograms were then taken which revealed a completely patent thyroglossal duct with central dilatation as shown in the accompanying diagram.

Case 2. A boy thirteen years of age, of average stature, had a swelling at about the location of the isthmus of the thyroid which exuded a clear mucoid substance from time to time, gradually subsiding after each recurrence. At a point about three centimeters above the suprasternal notch in the middle was located a small fistula which according to the mother had been present since birth. There was no drainage at the time of the examination but immediately to the right of this region was a small puckering scar which moved upward upon swallowing or upon protrusion of the tongue. The thyroid was not enlarged and there was no palpable mass. The tract was subsequently resected only to have a recurrence of the fistula three months after the resection.

Case 3. A man twenty-nine years of age complained of a swelling in the midline of the neck just below the hyoid bone, first noticed four months previously. It was associated with some difficulty in swallowing. He had been told that the tumor was a "swollen sweat gland" and had paid no more attention to it until two weeks before coming in when the tumor suddenly increased in size from one to two centimeters and began to exude a mucoid substance. At examination he presented a painless swelling in the middle of the neck just below the hyoid bone, and fixed to the deeper structures so that it moved with deglutition. It was not accompanied by inflammatory signs. The foramen caecum was abnormally prominent. A satisfactory resection was accomplished after preliminary injection with methylene blue solution.

These cases, one with a high cystic remnant, one with a low fistulous remnant, and one with the completely patent duct, make a review of the embryological considerations of considerable interest. Very early in fetal life the middle lobe of the thyroid gland arises from a sinking of the epithelium of the anterior pharyngeal wall in the region where the anterior bud or tuberculum impar meets the two posterior buds which together give origin to the base of the tongue. From this site the invaginated epithelium continues progressively downward to its normal middle lobe location, thus forming a long epithelial lined tube of small calibre, the thyroglossal duct, whose beginning on the dorsum of the tongue is permanently marked by the foramen caecum, a small crater at the apex of the V formed by the papillae circumvallatae. The thyroglossal duct therefore in the embryo runs from the foramen caecum in the midline of the neck, through or behind the site of the future hyoid bone. This duct is however a very early

structure which forms and loses its continuity normally in about four and one-half weeks so that by the time the cartilage of the hyoid bone is developed in the fifth week the duct has disappeared. If the duct fails to obliterate in any portion, that portion which remains may become dilated and form a cyst. If the cyst ruptures externally a fistula will result. These cysts and fistulae are always in the midline of the neck. The lingual part of the duct may remain open throughout life as a very fine little tract even extending 2.5 centimeters to the hyoid bone. Cysts and fistulae may lie above or below the hyoid bone, occasionally over it, and rarely the entire tract may persist. Both cysts and fistulae are usually noticed in childhood, less frequently at puberty, and seldom after thirty. The cysts increase slowly in size, usually painlessly, and without signs of inflammation. Pain may result in thyroglossal duct fistula if there is retention of the mucoid secretion from scabbing of the orifice. Occasionally severe or even fatal infection of the tract may result. Usual complaints are: slight pain, inconvenience from the presence of the tumor, mental unrest from the development and presence of an undiagnosed fistula, obstinate cough, bitter taste, or difficulty in swallowing. Anomalies of the thyroglossal duct are not particularly uncommon as evidenced by the fact that 28 per cent. of the postmortem examinations in a large clinic where these anomalies were particularly looked for, revealed some remains of the primitive duct. However, variations of sufficient consequence to give clinical symptoms are quite uncommon.

Suprahyoid cysts are lined with stratified squamous epithelium while those arising lower in the tract are lined by columnar epithelium, occasionally ciliated. When the upper part of the duct fails to disappear it usually lies close to the posterior surface of the hyoid bone and may even pass through it, which explains the reported finding of thyroid tissue in the body of the hyoid bone. Traces of thyroid tissue may be found at any level along the tract or even as an aggregation of glandular tissue at the base of the tongue, so that theoretically at least, all of the thyroid tissue of the body may be collected here without descent having taken place. The only remnant may be a processus pyramidalis, a ductus linguales, or a simple fibrous cord.

The diagnosis is usually easy. Branchial cysts are located laterally, and fistulae when present usually open along the anterior border of the sterno-mastoid muscle. Bursal cysts about the hyoid bone or the thyroid cartilage, sebaceous cysts, submental adenitis, simple abscess, sinuses of tubercular processes, lipoma, and ranula may occasionally have to be considered.

The treatment is usually complicated. In the case with the completely patent tract the following procedure was followed with a full measure of success. Successful surgical procedure was quite out of the question. Bismuth paste was used for a time without any effect except causing further difficulty in swallowing. The tract was next thoroughly cleansed by irrigating with sterile salt solution from below, and a 10 per cent. solution of silver nitrate injected. This was somewhat painful but not extremely painful. This injection was repeated in one week. All symptoms gradually subsided with no signs of recurrence within one year. Complete excision is best and most effective but very frequently inadvisable.

ACROMEGALY—A DEFECT OF DEVELOPMENT

B. V. McCLANAHAN, M. D.
GALESBURG, ILLINOIS

Following the discovery of a previously undiagnosed case of acromegaly in my locality, complicated with numerous anatomical abnormalities, I was tempted to look up the more recent literature on the subject. In this particular case there occurred so many defects of development that I could not help considering the acromegaly from the standpoint of a possible defect.

Regarding the etiology of this disease, Krumbaar [1] probably adequately sums up the present conception when he says, "The theory that acromegaly is due to (or at least follows) hyperfunction of the anterior lobe, after ossification of the epiphyses, as expressed by an increase of acidophil cells, is supported by a majority of the cases in literature. The increase of acidophil cells may be hyperplasia of a normal lobe or adenomatous."

The case in question came to me with complaints leading to a diagnosis of cholelithiasis, left sided inguinal hernia, left sided hydrocele

and varicocele, which conditions were remedied surgically. In 1915 he had had a right sided inguinal hernia repaired and in 1920 a hemorrhoidectomy. He is an adult male, 51 years of age, who has had the ordinary diseases of childhood but never any severe illness. Prior to 29 years of age his health was good, with the exception of an occasional spell with his stomach, accompanied with pain and vomiting. For the past ten to fifteen years he has been troubled with severe headaches. Stomach trouble and headaches seem to have been prevalent both

Fig. 1. X-ray of right hand. Scale 1 inch.

in his ancestors and children. At the age of twenty-nine years he first complained of stiffness of the joints of the hands. Three years later his hands and feet commenced to enlarge noticeably and rapidly for a period of two to three years and since then more slowly up to the present time. At forty-eight years of age he noticed a marked change in the separation of the teeth accompanied by an increase in the size of the jaw. Even now he says his "bite" is changing. At the present time he is weak, feels that gradually his strength is diminishing, tires easily, sweats profusely, is apt to be irritable and depressed mentally. There has been an increasing polyuria. The bones still seem to be increasing in size but the muscles are not increasing in proportion. He has used both alcoholic beverages and tobacco in the past but neither to excess. He complains of a constant bad taste in the mouth. His glove size has increased from 8½ to 12 and shoe size from 9 to 12, both these being small for him now. He has noticed no enlargement of the neck in the region of the thyroid.

Family History—Mother had large hands and feet, also had gall bladder trouble. One sister had an umbilical hernia. One sister operated on for gall stones and one died of carcinoma of stomach or gall bladder. One child has a patent inguinal ring and one has an infantile uterus.

Physical Examination reveals a ponderous appearing individual of apparent great strength. Ears, eyes, nose and throat negative. Tongue large. Marked separation of teeth, especially lowers. Occlusion imperfect.

Supraorbital and malar prominences very large. No enlargement of the thyroid. No cervical adenopathy.

Chest. Large type. Expansion normal. Lung and cardiac findings normal.

Abdomen: Scars of former operative work, otherwise negative.

Genitals: Negative.

Skin: Thick and leathery. Is of yellowish hue.

Extremities: Hands and feet very large and moist with perspiration.

Glove measurement, right hand, 11½ inches.

Circumference, thumb, right hand, 4¼ inches.

Condyle of mandible to symphysis menti, 7½ inches.

Reflexs: Sluggish. Touch is also markedly dulled.

Laboratory: Urine, 4000 to 6000 daily, low sp. gr., no albuminuria or glycosuria following ingestion of 250 grams of sugar. Blood, reds, 4,800,000, whites, 7000, Hb. 85%. Differential normal. Wassermann negative.

X-ray: Shows a very large and not clearly defined sella turica. Bones of the skull massive and dense.

In the review of several case histories and the more recent literature of acromegaly I have been unable to find any comparison made with any familial characteristics. Thyroid disease is asso-

ciated with acromegaly in 33 per cent of cases usually in the form of hypo-thyroidism.[2] Gall bladder disease is frequently mentioned in connection with it. In the Cook County Hospital during the past eleven years only seven cases of acromegaly have been entered; of these four have shown inguinal hernias and two have given definite history of gall bladder disease. Seldom do patients enter the hospital complaining of the bony changes caused by the acromegaly but about half come for the relief of the severe headache that usually accompanies this disease.

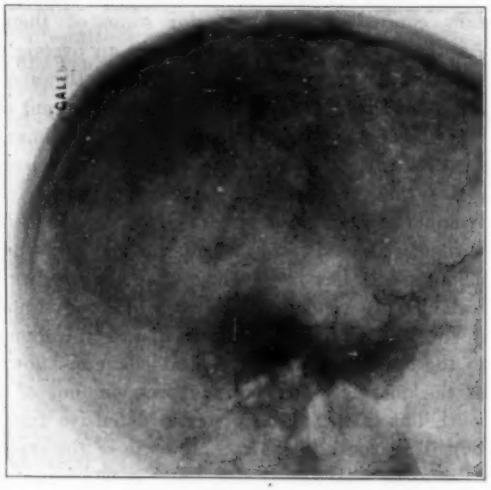

Fig. 2. X-ray of skull, showing ill defined sella turcica.

In this case also we find headache, gall bladder disease and hernias were his complaints. It is interesting to note the findings of eight members of his own family, these eight being his parents, three sisters, himself and two children, in whom we find three inguinal hernias, one umbilical hernia, four diseased gall bladders (one indefinite case), one cerebral tumor causing blindness, one hydrocele, one varicocele, and one infantile uterus. It is this array of findings that aroused my interest in this particular case.

While treatment will not be discussed at length, it was found that one c.c. of antuitrin (P. D. & Co.) hypodermatically caused cessation of sweating for a period of twelve to eighteen hours. Some cases are relieved for months following a course of such treatment.[3]

This case is reported because of the rather unusual findings surrounding it and also because of its comparative rarity. Although gall bladder disease, per se, may not be considered a defect, it was so frequently encountered that it is thought worthy of special mention. In considering this case from the standpoint of a developmental defect, it is not primarily with the idea of advancing another theory of etiology but rather to look at the same subject from a slightly different angle.

405 Hill Arcade Building.

BIBLIOGRAPHY

1. Krumbaar, E. B., Med. Clinics N. America, 5:927, Nov., 1921.
2. Jermain, L. F., Wisconsin M. J., 20:135, Aug., 1921.
3. Tice, Practice of Medicine, vol. viii.

DISCUSSION

DR. S. E. MUNSON, Springfield: I would like to ask the Doctor which lobe for the antuitrin extract he used.

DR. B. V. McCLANAHAN: Anterior lobe.

THE IMPORTANCE OF THE EARLY RECOGNITION OF SYPHILIS OF THE CENTRAL NERVOUS SYSTEM*

SIGMUND KRUMHOLZ, M. D.

Attending Neurologist Cook County Hospital; Assistant Professor Nervous and Mental Diseases, Northwestern University Medical School

CHICAGO

The discovery of the spirochæta pallida, the introduction of the Wassermann reaction and salvarsan treatment and the extensive employment of animal experimentation have stimulated further investigation and revealed many new observations in both the theoretical and clinical fields of syphilis. It is the purpose of this paper to review briefly some of the later observations, and to urge certain measures of prophylaxis of syphilis of the central nervous system.

In the early part of the 19th Century Philip Ricord, using the skin manifestations of the disease as his main criterion, divided syphilis into three stages. It is well known that the primary stage has reference to the initial lesion and involvement of the adjacent lymph glands; the secondary stage includes the specific changes of the skin and mucous membranes; tertiary consisting of late gummatous deposits involving the inner and other structures of the body (viscera, bones, etc.); and the quarternary stage of Fournier is named for the latest period—the so-called para-syphilitic diseases — tabes and general paresis.

*Read before the Chicago Medical Society, April 30, 1924.

Pending development and whilst knowledge as to the origin and evolution of the disease was in a state of empiricism and biological interpretation of it was not understood, Ricord's division was undoubtedly useful for the purpose of clinical diagnosis. In the light of the latest observations it appears that this method of classification is fundamentally faulty and therapeutically misleading. Misleading for the reason that, while this classification emphatically stresses the active stages of the disease, when cutaneous manifestations are picturesque, it causes apathy and almost utter disregard of the latent stage, during which the treponemas are firmly entrenching themselves in the various organs of the body. Thus, this doctrine tends to foster medical inactivity during the masked period of the disease and give the infection free leave to match its full specific force against the so-called allergic or defensive action of the host until the disease again flares up in the form of the tertiary stage. The late Drs. Hyde and Fox deplored Ricord's classification. Hyde said, Ricord's division is "nothing but an artificial device for classifying in a clumsy way the clinical phenomena of the disease," and Fox stated, "I wish that the terms, primary, secondary and tertiary, could be expunged from our vocabulary." Recent observations have shown that during its early evolution the infection is not limited to any tissue and that there is no definite boundary line between the various stages of the disease. In its stead, the parasite finds abode in the lymph spaces soon after its inoculation and continuously multiplies and radiates into the adjacent and distant lymphatics, lymph glands and blood stream, filtering through the walls of the blood vessels into the perivascular interstitial tissues of the various organs. Though the virus has a predilection for certain organs—skin, aorta, meninges,—it involves any and all the tissues of the body. At present there is abundance of evidence that syphilis is not only a systemic infection but that it is a systemic infection *from the time of its inception* and that the parasite may spread throughout all organs of the human economy in any stage of the disease.

Ample literature could be quoted to substantiate the above assertion, but, due to lack of time, will cite briefly only a few of the more important observations. Neisser, in his extensive experiments on monkeys, has shown that the syphilitic virus is demonstrable in all organs of the body long before the primary induration makes its appearance. In two cases of accidental syphilis watched closely since inception, Fordyce observed the symptoms of systemic involvement without the intervention of the initial lesion. Finger tells us that about six weeks after inoculation all organs of the body are flooded with spirochætes. What is the explanation for the presence of the familiar phenomenon of a strong Wassermann reaction in the large number of luetic individuals who give a negative history of primary and secondary lesions? Voluntary concealment answers for some of them. Another group may be allowed for an oversight of indistinct external manifestations. However, must not this coincidence in a certain per cent of cases be accounted for on the basis of a primary involvement of the internal organs? Neisser states that the virus may gain access to the lymphatics and blood stream direct to the skin without any visible or microscopic external changes. It has been shown that the biochemical changes rendering the syphilitic individual during the early period of the disease refractory to the development of a typical chancre, known as the anergic stage, is an expression, not of a local, but of a general systemic defensive function in response to the specific toxin of the syphilitic virus. Histologically, there is no clean cut distinction between the various stages of lues. Virchow says that recent and remote syphilitic lesions often look microscopically so much alike that one stage cannot be distinguished from another. Warthin cautions against the exclusion of syphilitic involvement on simply a gross pathological examination. He demonstrated on extensive autopsy material that microscopically syphilis is essentially alike in the various stages of the disease and that the characteristic specific inflammatory changes (lymphocytes and plasma cell infiltration and presence of spirochætes) are distributed throughout all the organs of the body. Furthermore, that the gumma upon which we formerly hinged our diagnosis of the tertiary stage, is a lesion of rare occurrence.

The syphilitic virus is generally accepted to have a predilection for the meningo-vascular system of the brain and spinal cord. It is also well known that when the central nervous system is involved it is most difficult to cope therapeutically with the infection. Hence, it is of

the utmost importance that spirochætosis be detected not during the remote period when they are firmly embedded in the mesodermal tissue of the neuronic system, but during that early stage when the meningo-vascular tissue presents the very first evidence of being threatened with involvement. For approximately fifty years many observers have called attention to the occurrence of nervous symptoms in numerous cases during the early stages of syphilis and attributed the headache, vertigo neuralgia, etc., which occurred during the second stage of the infection, to be symptomatic of meningeal irritation. It is now generally accepted that these early nervous manifestations indicate extension of the infection to the central nervous system.

Pathologically, it has been repeatedly shown, that the mesodermal tissue of the brain and cord present characteristic changes as early as two to twenty-one months after the initial lesion. Warthin found some degree of meningeal thickening in every case of latent and clinical syphilis.

Above all former observations, however, the most recent extensive and systematic studies have demonstrated that in the early stages of syphilitic infection, when symptoms of neurosyphilis are still held in abeyance, the cerebrospinal fluid presents specific changes of meningeal irritation and furthermore, that during the first year subsequent to the initial lesion these changes are as yet fleeting in nature. Revaut, the first to call attention to this phenomenon, reported in one of his contributions that in 85 per cent of cases the spinal fluid presents specific changes (increased cells and globulin) during the second stage of the infection. Dennis and Smith found 20 per cent of cases to present a positive Wassermann reaction in the spinal fluid during the primary stage and 55 per cent during the early period of the secondary stage of lues. Wile and Stokes reported that 66.7 per cent of their series showed specific changes in the spinal fluid; Wechselman, in many of his cases, when the chancre was still present. Koenigstein and Goldberger found that during the first year of the second stage the changes in the spinal fluid are most numerous but transitory (57.9 per cent), while during the second year of this stage they occur less frequent (32 per cent) but are more fixed.

In the Neurological Service at the Cook County Hospital, where practically only cases with definite symptoms of cerebrospinal lues seek admission, it is not at all unusual to find a case with a history of recent chancre and positive spinal fluid. To illustrate:

A 26-year-old married white man, with a negative family and previous history, developed a primary lesion on February 22, 1922. Upon inquiry at a dispensary, where he was first treated, it was revealed that the smear obtained from an enlarged left inguinal gland presented an abundance of spirochætes and one month later blood Wassermann was reported positive. Three months after the initial lesion the patient developed the usual subjective symptoms of meningeal irritation, headache, ringing in the ears, vomiting and insomnia. These symptoms persisted for two or three weeks and about a week later he noticed a paralysis of the left side of the face. When admitted to the hospital the physical examination revealed a left facial paralysis of peripheral distribution. The left ear was partially deaf and upon vestibular tests presented no nystagmus, typifying a paralysis of the vestibular branch of the eighth nerve. The motor and sensory branches of the trigeminal nerve were partly lacking in function; eye grounds showed a bilateral neuro-retinitis; ataxia was present on station and locomotion. The blood and spinal fluid Wassermanns were positive. The fluid contained 700 cells per cubic millimeter and the globulin tests were positive. He was diagnosed as syphilitic basal meningitis and under anti-luetic treatment the clinical symptoms subsided.

K. P., aged 26 years, single, Greek, laborer, on June 25, 1922, acquired a chancre and only three months after the initial lesion developed headache, insomnia, pain in the arms and legs and general malaise. These symptoms persisted and after six months he was forced to seek admission to the hospital.

Examination revealed left side ptosis and left facial paresis of the whole facial nerve. The pupils were irregular but equal and reacted normally. The Eye Department reported a bilateral optic neuritis. The blood Wassermann was 4+ and spinal fluid Wassermann 4+; cell count 35; globulin positive. Diagnosis: Basal syphilitic meningitis.

B. M. H., aged 32, single, aviator, admitted to hospital November 11, 1923. About December 15, 1922, developed chancre. About seven months after infection noticed stiffness and weakness of both legs, especially the left, burning of feet, incontinence of bladder, and paralysis of the bowels and impairment of vision. About one month later, in addition to the above symptoms, vertigo and vomiting forced him to enter hospital. The symptoms which persist to the present day were stiffness and weakness in the lower extremities.

Examination reveals a classical picture of spastic paraplegia, unequal pupils and an optic neuritis. The blood and spinal fluid Wassermanns were 4+. Cell count of the fluid 60.

Diagnosis: Cerebrospinal syphilis.

G. J., aged 34, colored, laborer, admitted to our ward

January 1, 1924, complaining of stiffness and soreness of neck, loss of power in right leg and pain in right shoulder and arm; also numbness of left side of the body and leg and sweating of the left side of the head. He stated that in the middle of August, 1923, had the primary lesion and three months later developed pain in both arms, followed by weakness in the right arm and on day of admission the above symptoms set in.

Examination revealed a typical Brown-Sequard paralysis and a Horner's syndrome. Blood and spinal fluid Wassermanns were positive; cells 390; globulin positive.

Diagnosis: Luetic spinal meningitis at the level of the eighth cervical and first dorsal segments.

The clinical picture in this case cleared up under antiluetic treatment.

These cases simply confirm the many observations that syphilis has a predilection for the central nervous system and that the spirochaetes may involve the meningo-vascular tissue, accompanied by definite objective symptoms and spinal fluid changes, not only during the tertiary stage as was formerly taught, but during the fluorescent epoch of the infection.

The pathological changes of the spinal fluid, precipitating as they do, long before the physical disturbances of the central nervous system definitely assert themselves, must be exploited for purpose of improving the standard of treatment of neuro-syphilis especially in prevention of the late syphilitic nervous diseases. If there is any hope for a cure that expectation rests entirely in the early eradication of the infection.

In the cases where definite symptoms of organic destruction of the brain and spinal cord present themselves, as illustrated by the cases just cited or by cases of tabes and general paresis, the diagnosis is not difficult and the prognosis is at best dubious. While in that group in which during the early period of the infection no clinical manifestations or only hazy symptoms of meningeal irritation are found, no means are at hand of obtaining positive information that spirochætes are lodged in the central nervous system except by the medium of spinal puncture. Therefore, during the incipient stage of cerebrospinal lues when, as above stated, the spinal fluid already presents characteristic changes, and while spirochætes have as yet but a slight hold upon the meninges, when the prognosis of curability, on proper anti-leutic treatment, is more favorable, lumbar puncture presents the only positive source of information, and must be considered as one of the most important guides for early diagnosis and persistent treatment of syphilis of the cerebrospinal axis.

During the first year of the infection the changes in the spinal fluid are fleeting in character, denoting that meningeal irritation is not as yet permanent. At this stage energetic antiluetic treatment might be carried out without the ordeal of spinal puncture. However, in the second year of the infection and thereafter when conversely, the blood Wassermann and clinical symptoms may become normal and the spinal fluid changes become more permanent, spinal puncture must be made to determine whether the syphilitic virus is threatening the meninges and, if found to be positive, shall henceforth be the controlling factor as to the efficiency of the treatment. This procedure will materially help to eradicate the infection before irremediable damage is done to the vital organs of the central nervous system.

2. SUMMARY

1. The doctrine that syphilis is a skin disease or that it is divisible into stages is scientifically incorrect and misleading.

2. Various observations lead to the conclusion that a syphilitic virus may spread to the vital organs of the body even prior to the appearance of the primary lesion and in a large per cent of cases prior to the end of the second stage.

3. The central nervous system is a point of predilection and its mesodermal tissues are frequently involved during the early periods of the infection.

4. The pathological changes of the spinal fluid, which are characteristic of neuro-syphilis, are found to be present in a large per cent of cases during the early stage of the disease.

5. To prevent permanent injury to the ectodermal tissue, constituting the brain and spinal cord proper, symptoms of any degree, denoting meningeal irritation, must be recognized at or soon after the inception of the infection.

6. In cases with hazy or no manifestations of meningeal involvement the examination of the spinal fluid will often prove a most important aid in the early diagnosis of syphilis of the central nervous system.

7. When the spinal fluid is found to be positive during the first and even the second year of the infection, energetic anti-luetic treatment may render the spinal fluid permanently sterile

and prevent occurrence of the late cerebrospinal manifestations.

DOCTORS AND THE PEOPLE*

A. M. SHAW, M.D.
ADRIAN, ILL.

Rudyard Kipling made a striking statement about the real power of the medical profession. He said in substance (I cannot quote his exact words): "Doctors can make a desert of a metropolis. With a few yellow small-pox signs they can change the busiest street to the loneliness of Sahara." This of course is due to the deep-seated dread of unknown infections, but it shows what influence our opinions may have if we intelligently use our faculties.

Quacks will continue to plague us, and rob the people of money and health till those who think and see crooked vanish from the earth, which will not be in our time and probably never. But the majority of any American community are not fools, though there are many who do unwise things through ignorance. By helping those who "see through a glass darkly" to think clearly, we can benefit them and ourselves.

It is not good policy to rail at the cults of pretenders at healing. A strong man, ready for a race, gains nothing by reviling cripples. A difference between athletics and medicine is that in the latter, incompetence is not obvious. That is largely our fault. Doctor in the original Latin means teacher. Has this part of our title become so atrophied that we can no longer defend ourselves? There is only one effective way to do this—teach the people that modern medicine depends largely on careful observation and scientific training and that only those who do and have this are fit to treat the sick.

We do not need to advertise blatantly. We do not need to use the methods of our shady colleagues who push themselves on by braggadocio and the grace of ignorant gabble. All we need to do is to tell the truth as we know it without selfish personal aims or methods. Why not do it now and in Hancock County?

The treatment for our professional ills is largely individual and personal with us. No better opportunity to impress on our patients the value of scientific medicine will come than when they are receiving the benefit of it at our hands. Take a little time to explain how and why and what we are doing. General public instruction in the fundamentals of physiology and pathology are virtually essential, but until we individually drive home these facts, such efforts will not get the best results.

We must "deliver the goods." Slip-shod diagnosis and treatment harm not only the doctor who makes them, but all of us as well. As our secretary, Dr. Knight, has well remarked about our cases that drift off to alleged specialists of the patient's own choosing, to hospitals and famous clinics and worse still, to ill-prepared, self-styled practitioners, the remedy is hard individual work. As he says, get down and dig out the obscure facts of a case that is not progressing well, and hunt out all the known methods of treatment. If we cannot get a successful result, we will probably have the patient's respect and can send him to a consultant who will treat both us and the patient right.

Have you not all noticed the interest people have in matters of health? Hardly any assembly of people will talk fifteen minutes without referring to the state of health of somebody. Several methods of using this natural interest are ready to hand.

The newspapers of this county are alive to the interests of their readers. I believe most of them would welcome articles of practical value on good health coming from an organization like our society. Such contributions would be a feature that many of the metropolitan journals regularly use and have to pay for.

Another way is by the promotion of periodic health examinations. I believe that this and other measures of preventive medicine offer great opportunity to the physician of the future. We need not fear that this will curtail our professional incomes. This work will take a great deal of professional time and skill. And as this develops it will bring out new demand for curative treatment. The standards of health will be set on a new and higher plane. Thirty years ago, doctors did not do much for diseased tonsils, or the milder toxic goiters or fatigue intoxications. As time goes on, we will have more and better work, with better results, and be more amply paid for it. This will come about if we are alive and up-to-date—if not, we had better abandon medicine.

*Read before the Hancock County Medical Society, April 8, 1924.

The medical examination of school children is a thing which has been begun, but barely so in the country districts. This matter has got off on the wrong foot with us, in that most of the work done by doctors has been on a charity basis. If the people who are interested in schools can be brought to see that medical inspection means healthier children, better school work and stronger men and women in the future, they will not wish it to be done gratis any more than they expect free teaching or free coal—that is, without proper compensation. People in the rural districts have not had their ideas of honesty impaired by fool free dispensary or hospital service to those who can pay. I suggest that at the next meeting of this society the leading public school authorities of the county be invited to a conference with us on this subject.

For almost a year, the Woman's Home Bureau of this county has been considering the matter of health examinations. I think that if a committee of this society should ask to meet with the Executive Board of the Home Bureau, good results might follow.

But there is an obverse side to the shield of our professional burden. If we are to do these added and important duties, we must have time and means to do them. A doctor cannot do the medical work of today with the equipment and surroundings of forty years ago any more than farmers can manage with scythes and one-horse cultivators. The doctor has no business to have to depend on horse transportation except in sudden and dire emergency. Good roads are as essential as modern instruments of diagnosis. This winter's roads have for the time being set us back to the conditions of a generation ago. We could not make sufficient visits to our patients. We had not time for the reading, study and laboratory work in our offices, which, if we are to do more than a superficial pretense at good practice, is as necessary as examination of the patient or prescribing his treatment. People must be brought to see that bad roads do not mean merely a superhuman task for the doctors, but that they as individuals are the real sufferers, because they do not get the best medical service. Also they should learn that the country districts do not have and will not have as numerous a medical personnel as formerly. In the future, if isolated neighborhoods prefer to stick in the mud, they will at times have to stew in their own misery, for the doctor who is busy with patients near at home will not sacrifice their interests to drive eight or ten miles at the tail of a horse.

We all know the value of hospitals. I do not think that hospital environment is best for the majority of patients. The surroundings of home are ordinarily more comforting to the invalid than a strange place. They do better and respond better to the inspiration of family care and affection. But there are many cases where a change is urgent and necessary. Surgical cases we know do better. The desperately ill who need every resource of medicine and the most watchful care should be in the hospital. Every town that can support good schools and churches should have at least a small hospital. Every doctor should have a hospital within 30 minutes reach for his cases that should have such care.

The co-ordination of good roads, hospitals and a medical profession that has time and opportunity to be progressive and use all the modern armamentarium of medicine offers more to the people than anything we have been able to give them in the past.

OPHTHALMOSCOPY IN MEDICINE AND SURGERY*

W. A. Fisher, M.D.
CHICAGO

Ophthalmoscopy should be a most interesting subject for general medical men and surgeons, if mastering the ophthalmoscope were not wrongly considered as next to impossible. The ophthalmoscope is a simple, inexpensive and useful instrument which can be mastered in a very short time if its study is approached in a proper manner. Unfortunately, ophthalmoscopy is not taught in a practical manner in medical schools, and post-graduate teachers tell me they rarely find a student who can make diagnosis with the ophthalmoscope unless he has learned its use outside of his regular medical course. I seldom meet general medical men who can examine the interior of an eye, even with a dilated pupil. The ophthalmoscope is such a useful instrument that it should be taught to medical students as a laboratory course, with models, in the beginning of their studies.

Method of Teaching. Instructors of ophthal-

*Read before the Owenburg Medical Society, May 27, 1924.

mology have their special system of teaching. Some divide the class into small sections and practice upon patients with dilated pupils. This method has its disadvantages, because as a rule, only diseases are observed; on the contrary, the normal eye should be first mastered. Again it is quite impossible even in a very large clinic to get all diseases to study.

Eye Models. With the writer's model, having two normal and twenty-two diseased pictures, the normal eye can be mastered first, then the diseases can be studied. The model has a pupil that can be made large or small, as desired, beginning with a large pupil and as proficiency is obtained, it can be reduced. When the model is mastered, the study of the human eye is simplified. It is not necessary in this paper to describe models, or how to use them. Full descriptions accompany them.

It is not necessary to practice upon patients; in fact, a model is far better and pictures of almost all diseases of the eye can be found in it. If the subject were not taught in a practical manner in college, and the medical man finds he cannot examine the interior of an eye with the ophthalmoscope, he can easily master the subject with a model and a good book.

Having received many letters from medical men who have mastered ophthalmoscopy with a model and fitting of glasses from home study, I am convinced the subject is not as difficult as some imagine. The writer published an article, "Teaching of Ophthalmoscopy to Undergraduates and Graduates in Medicine" (Ophthalmic Record, 1909), and stated that if medical schools would teach ophthalmoscopy and fitting of glasses to their students, their graduates would find the diagnosis of many diseases in their practice which would otherwise be overlooked, made easy and the treatment simplified. Another statement was made, that if this were done, there would be no further legislation regarding opticians, because medical men would treat refraction cases and opticians would have no business.

At that time (1909) there were optometry laws in twenty-four states of the United States, and now in 1924 every state has its optometry laws. If ophthalmoscopy can be mastered from a book and model, and it can be done, then practitioners can add this instrument to their armamentarium. I do not believe anyone who has impartially investigated the subject will take issue on the foregoing.

What Are Common Diseases of the Eye. From an oculist's standpoint, diseases of the interior of the eye, as revealed by the ophthalmoscope, are called common diseases, but without this instrument, diseases of the lids and such other diseases of the eye ball as can be seen by inspection, are called common diseases. Many diseases of the interior of the eye that the practitioner could see and diagnose with the ophthalmoscope could be treated with satisfaction to himself and patient.

Pathological lesions of the fundus are not difficult to diagnose if they can be seen, and if so, ophthalmic text-books are interesting and of great value. If the ophthalmoscope cannot be used, text-books on ophthalmology are practically useless.

Choked Disc. Blindness is common on account of undiagnosed swollen optic nerves. If a swollen nerve head (choked disc) usually caused by syphilis is diagnosed and treatment instituted early, recovery is usually complete.

Optic Atrophy. This disease, usually following choked disc, is quite a common condition for an oculist to find, but would be very rare if the diagnosis (choked disc) were made early and proper treatment instituted by the family physician, who is often consulted first on account of headaches or blurred vision. Choked disc readily yields to treatment, but optic atrophy terminates in blindness. If the above is correct, as it is, then it should be imperative that practitioners familiarize themselves with ophthalmoscopy.

Obstetrics. If physicians are to have the lives of parturient women entrusted in their care, they should have the benefit of this little inexpensive instrument.

Fitting of Glasses. Patients often consult the family physician regarding headaches and poor vision. Many of them would be promptly relieved if proper glasses were prescribed instead of drugs. After long waiting and much treatment, glasses are given with success in many cases. The oculist or optician seem to be the only ones who do this work, and since it is such a simple procedure, it could also be done by the family physician. It is possible that some ophthalmic surgeons may take exception to the above, but the fact remains that opticians or optometrists

are getting results although they know little of diseases of the eye, and very few of them are familiar with the ophthalmoscope and its use.

Conclusion. Practitioners should understand ophthalmoscopy in order to give their patients intelligent advice regarding many diseases positively diagnosed with the aid of the ophthalmoscope, such as hemorrhages of the retina, Bright's disease, albuminuric, diabetic, syphilitic and leukemic retinitis, choroiditis, sarcoma of the choroid, optic neuritis, optic atrophy and glaucoma. Many diseases easily recognized with the ophthalmoscope can be successfully treated, thereby relieving suffering, preventing blindness and even death. Some of the ablest general practitioners, surgeons and neurologists use the ophthalmoscope and make diagnosis of the interior of the eye, and the writer is surprised that this subject is not more generally understood, especially when it is within the grasp of all.

The committee on medical education of the A. M. A. which has accomplished so much might correct this error by insisting that practical ophthalmoscopy and fitting of glasses at least equal to optometry practice should be taught in medical schools.

THE SCOPE OF PERIODIC PHYSICAL EXAMINATIONS*

LeRoy P. Kuhn, M. D.,
CHICAGO

There are approximately 110,000,000 people in the United States. Of this population 1,700,000 or 2,000,000 seek and obtain medical attention during each year. For every sick person on our list, there are one hundred or more who are well. Many of the apparently well ones have preventable illnesses incubating in their systems. They do not know it. Our duty is to inform them.

Health officers are paid for supervising and, to a degree, controlling the health of a community. In this country doctors are paid for rendering service to the sick. In some countries doctors are paid to keep folks well. When they become ill pay stops. It is reasonable then to believe our field is two-fold—preventive and curative.

The medical profession has been so occupied with alleviating suffering and curing disease, that we have left open, until recently, the field of preventive medicine. In some instances unskilled efforts have been put forth by the laity to prolong life and prevent disease. These efforts fell short of what they were expected to accomplish, only because not directed in the proper manner by expert medical knowledge. All this has had a broadening influence on the scope of the practice of medicine.

The manufacturer has seen this problem, possibly a little ahead of the doctor and has recognized in it a great economic situation wherein he was losing, through sickness of employes, many days which otherwise might be saved not only to the employer but to the employe's family.

With the idea in mind that society generally would benefit, a number of philanthropic organizations were brought together during the past winter for the purpose of forming the Illinois Association for the Promotion of Periodic Health Examinations.

I find the scope of periodic physical examinations may be considered under five headings:

1. Apparently healthy persons of all ages.
2. Presymptoms of approaching illness (the symptom of a symptom.)
3. Early evidence of disorder before discomfort interferes with occupation.
4. Progressive disturbances which produce anxiety sufficient to warrant medical analysis.
5. Diagnosis of established disease.

There is nothing, in my mind, that will bring the public closer to the profession than the fact that we are trying to keep folks well. When the public thoroughly understands we have no ulterior motive, that our attention to a healthy person is to keep that person healthy, then we will make progress. It seems to me the well qualified medical practitioners of the country have a responsibility with healthy persons, wherein a closer contact may be brought into effect which will inhibit the efforts of the pseudocultist and the faker. Why not inform our patients we will keep them well for a certain amount each year? This will have a tendency to lead them away from cults and evil agencies.

If the County Medical Societies at their meetings would encourage physical examinations by the family physician of the members of fami-

*Read before Section on Medicine, Illinois State Medical Society, Springfield, May 7, 1924.

lies who are dependent upon him, there is no doubt in my mind but that preventive medicine would go forward by leaps and bounds.

A quick way to get returns on this subject is to convey the soundness of our argument to women's clubs. A talk of ten minutes by a disinterested party before a club, will be sufficient to start a whole town discussing the subject. Of course, it will be necessary to have the examination blank ready, so they can go over it.

I am inclined to the opinion Dr. George E. Vincent, president of Rockefeller Foundation, advanced a short time ago when he said it might be well to pay a doctor a retainer fee by the year to prevent sickness in a family. The physician is to visit the home at certain intervals and by examination prevent, instead of merely curing, diseases. When that day comes the prevalence of illness will be much reduced. It is not improbable that many centuries hence disease will be as unusual and curious as any other freak of nature. Laying aside cases of gross carelessness, we have not taken time to study ourselves in our relation to the things with which we come in contact and by which we carry on our daily lives. If a person periodically confides in his physician, giving him an intimate picture of his mode of living, his foods, his exercise, his daily round, a possible illness would probably be averted.

In discussing the presymptoms found by examination of family history and record of patient's mode of living, it may be necessary to further inquire into ancestral and genealogic history. The patient's memory, disposition, character, reason, and education are all to be considered together with environment. Testing and tabulation of all the significant reactions and functions—tests of the muscular system, the reaction of reflexes of each of the special senses. All the art and skill a physician is capable of commanding should be brought into use while making this part of the examination. Otherwise, the sharp line of distinction between health and disease may not be discovered. In fact, many a presymptom may be overlooked, if a physician forgets he is looking for early manifestations of symptoms and not disease.

It has been stated physical examinations should be made by specially qualified physicians who were in a position to detect and record all the unusual symptoms and advise treatment accordingly. In my opinion any doctor with ordinary intelligence can test and record such presymptoms as undue tendency to fatigue, vertigo, unusual headaches, indigestion, doubtful urinary findings, etc.

It must be borne in mind that there is yet no general agreement as to what constitutes a normal individual. What is important to know is how the individual as a whole can undertake the affairs of life, rather than befog the issue with an array of defects which though permanent may in no way interfere with his future field of usefulness.

During the days of epidemics and pestilence it was considered good evidence of normal health to avoid death. People would expose themselves and their children to mild cases in the hope they might contract a mild form of the disease. It never occurred to those people that they might entirely avoid pestilence. Their only thought was not to die of it. There was a great improvement during the first part of this century in the avoidance of certain infections, those infections especially referring to infancy.

Our struggle in this age is not only to prevent infections and contagious diseases, but toward perfecting health. A healthy body can be made a positive asset. It is one of the necessary foundation stones, not only to prevent disease but also for development.

I think more emphasis should be placed on the fact that by physical examinations we are able to determine that folks are healthy, than to discover certain defects with the assurance these defects can be corrected. We have a great problem to solve with reference to treatment of defects found in patients who are in need of help, but are unable to afford to go to private physicians and dentists and are unwilling to accept charity. This situation has not been fairly met up to the present time by either the dentists or the physicians.

A short time ago I attended an autopsy wherein the question of why a man had fallen into heavy machinery and been crushed was to be decided. It was found this man had an adhesive pericarditis with other complications sufficient to produce sudden death. Had this patient been given the benefit of a physical examination at the time of employment, he would

have been treated for his malady and placed at work without danger. The economic result would have been different, both to his family and employer.

Out of 1,397 physical examinations made in an eastern department store it was found 405 were free from defects—or 29 per cent.

701—defects of vision.
528—disturbances in nutrition.
20—defective hearing.
887—defective teeth.
38—enlarged and diseased tonsils.
167—disturbance of goiter.
50—circulatory disturbance.
10—disease of lungs.
34—hernias.
93—skin diseases.
97—flat foot.
90—severe dysmenorrhea.
52—abnormal urinary findings.

2,867—different kinds of defects in 992 examinations, averaging two per person.

American employers are interested in physical examinations of their employes from a humanitarian point of view. But there also is quite an important economical consideration, for it is a serious interference with plant efficiency when workers have to lay down their tools on account of illness. If the average loss per year for each worker were only five days, in place of seven, as it now is, it would mean saving millions of dollars to employers of the nation in increased efficiency.

Over one hundred years ago Doctor Benjamin Rush, after whom Rush Medical College was named, wrote a book on medical practice and in the first chapter cites many cases in which patients suffering from rheumatism and other maladies either were cured or greatly improved by the extraction of teeth.

More than a century ago in England examination of the teeth of school children was considered a routine procedure.

Teeth of the average adult appear to have been neglected judging from the evidence of 6,000 x-ray pictures taken a few years ago of the mouths of 600 adults of the average age of twenty-eight years. These pictures showed over 1,500 treated teeth and an average of five and one-half teeth missing for each person. Allowing for a few who never had wisdom teeth, we might say that an average of four teeth for each person had been extracted because of neglect of cavities of decay. These same x-ray pictures showed that 51 per cent. of these 600 adults had infected areas at the ends of roots of one or more teeth and 53 per cent. had parts of the bone along the sides of the roots destroyed by the infective process known as pyorrhea. Of the entire 600, 78 per cent. had one or the other or both types of infection. Nearly every leading physician will tell you that infections of the teeth are by far the most frequent causes of secondary infections elsewhere in the body. The lack of attention to the teeth of our children and adults results in a series of disabilities which is without doubt cutting short the lives of many people.

Recently Miss Marion A. Campbell, Secretary of the Illinois Society for the Prevention of Blindness, stated:

Congenital Amblyopia is not an uncommon condition found among school pupils, and is often discovered among employes in industrial plants, who, however, are ignorant of the fact and have never realized that they have by reason of it but half vision. Such adults are likely to become liabilities to the employer who must compensate him for the loss of an eye through accident, which, if the fact were known previous to the accident, would have eliminated responsibility of the employer. Should such an employe lose the sight ot his one eye through an accident and it be then discovered that he is totally blind, the liability of the employer then becomes infinitively greater, as he must compensate for total disability.

The amount paid in Pennsylvania in six years for eyes lost, under the operation of the Compensation Act, was $4,400,000. This was more than the amount paid for hands, arms, feet and legs in the same time.

We believe it to be a sound economy to provide an eye examination at entrance for all employes, with frequent re-examinations after an illness or any accident to the eye or eyes, to follow the examination with opportunity for refractive service and glasses at such rates as will make it possible for employes to secure such.

There were in Illinois during the year of 1919 804,805 persons engaged in industry. This same year there were 653,114 wage earners. During the year of 1921 there were 642,325 persons engaged in industry and 513,876 wage earners. The number of persons engaged in gainful occupations in Illinois ten years of age and upward during 1920 was 2,627,738. Of these, 2,086,000 were males and 540,938 were females. Employers are slowly demanding examinations of these employes. Labor now is anxious for the examinations, in fact conducting examinations themselves and checking up on the employer. Up to December, 1917, 3,764,000 men were sent to military camp from civil life, of whom 550,000 were rejected because of defects.

Recently life expectancy has been raised from 46.63 to 55.08 or an increase of 8.45 years. Doctor Dublin has shown in a lecture to the Harvey Society that the expectation of life should be extended to 65 years. The extension of life expectancy one year means to this country 100,000,000 life years; and, figured at $100 a year, means $10,000,000,000.

Doctor W. L. Hartman in a recent report refers to five men in very responsible positions, each of whom came very near wrecking the business that he influenced because he had syphilis of the brain. Dr. Hartman further states: "Nations have been wrecked by cerebral syphilis of rulers." Before the world can be made safe for democracy, the League of Nations will have to require that all kings and potentates be examined for cerebral syphilis once a year. The behavior of a man with cerebral syphilis makes it dangerous to have him in a position of authority. Notions of grandeur are very apt to show themselves.

A physical examination should be arranged for by making an appointment with the family physician. The examination should never be made during crowded office hours. The appointment is desirable because the time required should be not less than one-half hour. This length of time given will be profitable both to patient and physician. The physician's time can be materially saved if the patient will fill out the history blank, answering all of the 36 questions.

I rather doubt if it is possible for physicians not familiar with routine examination work to go over a patient completely as required by our Illinois blank in a half hour. It may require much more time. This examination blank may be referred to by a Doctor in another town or another state at a later time. In order to have it contain information that can be depended upon, one should allow sufficient time to do the patient justice. In examining a patient for temperature, blood pressure, sitting and lying, hearing and vision, urine analysis, chemical and microscopic, as outlined in the introductory part of the blank, one should allow sufficient time to do it well. A urine analysis should not be made hurriedly. Neither should a physician accept a bottle of urine brought to the doctor by the patient. I can see great harm come from a physical examination blank signed by a doctor to be used for various purposes, when the physician has a doubt about some of the more important tests.

The success of all our propaganda and future of this work depends upon how thoroughly we do our work. A hurried makeshift examination is much worse than no examination at all. For example, a patient returns from a Doctor with 99 per cent. physical findings. He is much elated. He has a right to be. He has been contemplating marriage, or he wishes to assure his family he is in splendid condition of health. At the time of this examination he was considerably disturbed, but the doctor has allayed all anxiety. For a time he continues on the crest of the rainbow as the clouds clear away. However, the progress of his illness advances. Suddenly he awakes to the real facts when it is most too late. At the time of this examination the doctor was in a hurry, many waiting in his office. It was another of those physical examinations which required time and not much money, so he hurried. The result has been loss of confidence by patient in the doctor with further derogatory comment from the laity.

A prominent internist said to me last winter that he was afraid periodic physical examinations would be upon the medical profession before physicians were ready to cope with the situation. In other words doctors generally would need a little special training. If physicians take this matter seriously, results will be obtained. Our patients will think more of us and be willing to pay a substantial fee.

The question of amount of fee should be settled by the County Medical Society, as all other fee questions are settled, according to the ability of the patient to pay. I am inclined to believe the usual fee of old line life insurance examinations might prevail in most localities. However, if the physical findings indicate some particular defect, as low sugar tolerance, asthma, latent syphilitic infection, high blood pressure, anemia, changes in vision or reflexes, necessitating laboratory procedure, it will, of course, be necessary to increase the fee accordingly.

The office of the examiner should be warm. 75 degrees. A flannel or sheet might be provided for protection of the patient while the examiner

proceeds from one area to another. The usual firm examining table can be used.

The following instruments are needed:

Stethoscope.
Thermometer.
Tongue depressors.
Tape measure.
Laryngeal mirror.
Fallqvists hemoglobin scale.
Vision chart (Snellen).
Rubber gloves.
Weight scales.
Complete urinalysis set, including microscope.
Nose, vaginal and rectal speculums.
Opththalmoscope, reflex hammer.

It must be remembered we are not dealing with a diagnosis of established disease, but rather an estimate of health of certain individuals. When we have the sum total of this examination it may be necessary to make further detailed examination to determine location, extent and character of disease processes. Under question number five of our blank it might be necessary to give directions to the patient about correction of defects noted, together with non-technical wording of measures possible for the patient to follow.

If a physician so desires he may give the patient a rating when the examination is completed. Quite possible the patient will demand the doctor's opinion. If so a certain average may be given. A plus—Physical condition unusually good. A—Good health, no defects. B plus—Infinitesimal defects. B—Minor defects of a more serious nature. C plus—Serious correctable defects. C—Disabling defects, communicable diseases.

It will be necessary for each doctor to have a follow-up system to insure success, correct defects, and properly supervise the health of his patients. Correction of defects should not be compulsory, but that the physician is anxious about the development of those he has examined.

Diseased teeth or disturbances of vision demand immediate attention and the patient should be so advised. Physical examinations are only the first step. Our entire efforts will be completely lost unless the follow-up system is effective.

Instead of so many Christmas presents and birthday presents, one cannot give a better present to a friend, or one in need, than a certificate to a doctor for a complete physical examination. These examinations, together with the follow-up system are going to bring humanity back to a realization that the family doctor after all is more interested in the health and welfare of a community than all other agencies combined.

A statistician published figures showing that in 1921, there was expended in the United States an average per capita of $10 for candy, $9 for education, 50 cents for chewing gum, and 29 cents for health.

We must not forget that the power of a nation and the happiness of our people depend upon the health of individuals.

DISCUSSION

Dr. R. H. Hayes, Chicago: A few years ago a body of laymen in New York instituted an organization which they deemed it advisable to broaden until at this time it extends throughout the country. In this organization they choose their own physicians, in the larger communities especially. Ex-President William Howard Taft is at the present time one of the vice-presidents. They saw the necessity for periodic physical examinations.

Now, you may have a patient, a well-to-do individual. He reads the publications, the magazines and the newspapers from other cities. He sees there the New York Life Extension Institute advertisement. He takes warning, consults some member of their organization who has had direct connection with them, sends his report of a superficial physical examination and a urine specimen to New York with the result that he soon receives a letter from the Institute informing him that he has some disability; that he had better consult so and so in such a place. You can see where that is going to help us home physicians but very little. They are doing a thriving business. It is taking money out of the practitioner's pocket, out of your pockets. It is education of the laity by correspondence through this institution, not an education of the patient through his own physician.

Thanks to the foresight of the Illinois Manufacturers' Association and some of the hard working physicians in Illinois, an organization was incorporated in Illinois to benefit not only the public but directly benefit the physicians. I was very glad last night after talking to the secretaries of the county societies to see the great amount of interest manifested in this movement. It is because of this interest by the secretaries and other members of the profession that I am glad Dr. Kuhn came up here and gave this talk. We are receiving hearty cooperation throughout the state and when you doctors realize that this movement is not a detriment to you but is a direct asset, that it is for you and for the benefit of the public, that there is no lay organization trying to take anything from you, but is really trying to do something for you, we know that your cooperation and your support will be heartily given.

Dr. Edmund D. Levisohn, Chicago, said: I am speaking on this subject from the experience I have gained as an industrial surgeon. In my association

with industrial surgery I have made a practice for a number of years to examine men for employment. I do not go into a general physical examination such as Dr. Kuhn outlines, but limit my examinations to the eyes, ears, heart and lungs. Also hernias and venereal disease. Positive findings have caused me to reject such applicants for employment.

The result of these findings have netted the employers a considerable return in savings from fictitious claims for compensation due to defects in hearing, blindness or diminution of vision from various causes, hernias and certain claims which arise from complications of venereal infections. In all of my eye examinations I have made it a rule not to allow a man to assume employment until he has a proper lense correction. In this way I have made something like fifteen thousand examinations without having a loss due to eye injury from inability to use the eyes properly.

In private practice this examination would be insufficient and, as Dr. Kuhn outlines, would have to be considerably more thorough.

Personally I do not believe that I can agree with Dr. Kuhn that the old time life insurance fee for the physical examination he is desirous of inaugurating is sufficient. However, that is a question we can meet later. I do think the question of periodic health examination is a question to which we should give considerable serious thought.

Dr. Leroy P. Kuhn, Chicago (closing the discussion), said: I wish to call your attention to this chart which I have prepared (indicating chart on the wall) as a means of getting this organization out into the different towns and counties of the state.

All above the center line represents state organizations. Those below, the smaller towns and villages and city organizations. You would be surprised to know the great interest that is taken in this work by the laity. It seems to me that the doctors are just a little behind in this movement. It is something that is going to concern the medical profession more than anything that has come to our attention for a long time.

I noticed just last week in the Journal A. M. A. that periodic health examinations have been taken up in New York by representative municipal organizations, civic organizations, industry, chambers of commerce and the medical profession. All of these organizations joined in a mass meeting on April 15, showing the urgent need of periodic health examinations. The meeting was held under the auspices of the Brooklyn Health Examination Committee and the Kings County Medical Society. The state was represented by the District Health Commissioner and other members and a great deal of interest was taken. They had a large attendance at the meeting.

That is one way of getting the different organizations.

Mr. Butterworth, who is president of this association, a large manufacturer in Moline, Ill., has prepared a speech which has been given out over the radio two or three times during the past winter. I have brought with me today probably a hundred inquiries following this speech by Mr. Butterworth.

I would like very much to see the Illinois State Medical Society, through its county associations, take hold of this subject, and give it the encouragement that I believe it warrants.

THE RELATION OF THE GENERAL PRACTITIONER TO THE TUBERCULOSIS PROBLEM

R. T. PETTIT, M. D.

OTTAWA, ILL.

It would have been of more interest to hear the few remarks I have to make regarding this subject when considered with the other papers on tuberculosis and the chest which were given this morning. Owing to the fact that Dr. Kuhn had to return rather suddenly to Chicago I changed places with him on the program. My remarks on this subject will be very short indeed, just merely to call your attention to certain phases of the tuberculosis problem, and what we in the Illinois Tuberculosis Association, together with the Illinois State Medical Society, are trying to do.

Those of you who were here this morning and heard Dr. Palmer's paper on the treatment of tuberculosis will remember that he emphasized two points particularly with regard to our modern conceptions of treatment. We are coming to believe that rest, absolute bed rest, is one of the most important, rather than one of the least important things in the treatment of pulmonary tuberculosis.

Another important thing in the treatment of tuberculosis is education; education of the public, education of the patient, and education of the physician. With regard to the education of the public we have made tremendous strides. When the National Tuberculosis Association was organized in 1904, twenty years ago, in Washington, Sir William Osler, who presided at the initial meeting, made the prediction that by the education of the public, giving to them knowledge that we possessed at that time regarding this disease, its prevention, its diagnosis and treatment, that it would be possible in thirty years to reduce the mortality 30 per cent. By the education of the public (and for this educa-

*Read before the Section on Medicine, Illinois State Medical Society, Springfield, May 7, 1924.

tion we are indebted to the medical profession) instead of reducing the mortality from tuberculosis 30 per cent. in 30 years, we have cut it in half in twenty years. What the irreducible minimum will be in reducing this mortality of course no one of us at this time knows, but it is without question possible to reduce it very much further.

One of the most important things in the reduction of this mortality is in the early diagnosis, and that must necessarily rest in the hands of the doctor who sees the patient first. We must educate the public regarding the symptoms of tuberculosis in the way that we have educated them regarding the symptoms of appendicitis. We must have doctors educated to take care of these cases. This is not expecting too much of the medical profession. There is still much room for the education of the medical profession in physical diagnosis of the chest.

With this in mind the Illinois Tuberculosis Association, in conjunction with the Illinois State Medical Society, has formulated a program of education for county medical societies, "Schools of Instruction," if you please, of one day's duration, that will be given to the various county societies in the state of Illinois that ask for it. A letter was sent out to the secretaries and presidents of the various component societies, and I am very happy to say that almost without exception the county societies have replied and asked that this School of Instruction be brought to them.

The school of instruction will be practical. It will deal with the discussion of the practical problems of diagnosis and treatment; not the reading of papers, but the demonstration of the methods we have today in common use handling this disease. The first meeting was held in Madison county, at Edwardsville, on the fourth of last month. Dr. Fiegenbaum, who is secretary of that society, "The Madison County Doctor," has these few remarks to make regarding that first meeting:

The first School of Instruction in Tuberculosis, for physicians, ever held in the United States, was held in the State of Illinois, and Edwardsville, in the County of Madison, was selected for the first session of that school. The session was held on April 4, 1924, and was an all-day session, conducted by four instructors, each one qualified as an expert in tuberculosis. Thirty-five physicians attended the session and gave strict and interested attention during the long day, which did not end until 6 o'clock in the evening.

This plan marks an epoch in tuberculosis work and we predict for it a great future. This plan originated by Dr. J. W. Pettit and endorsed by Dr. E. H. Ochsner, President of the Illinois State Medical Society, and the Council of the Illinois Medical Society, will stimulate interest in this subject and will inaugurate careful study and research by the average practitioner which cannot help but be of great benefit to the citizens of our country and state.

The next school is in Adams county, and various schools will be held during the year. It will not be possible to hold them in every county. In some instances a number of counties will be grouped. You are invited to attend these schools and we hope you will find them of benefit and interest. I hope this will be the starting point for an educational movement, not only in tuberculosis, but in schools of instruction in this state, as it is in Pennsylvania, for the discussion of various subjects that are of interest to the physician. There is no reason why the American Society for the Control of Cancer should not contribute something to the practitioners of this state. There is no reason why the American Society for the Study of Goiter and other societies interested in different types of disease may not also follow this plan and bring to the members something in the way of a post-graduate instruction, something that they can use in their daily work.

MOTHERHOOD ENJOYABLE TO WOMEN

In "Woman, a Vindication," Ludovici declares that he does not believe that childbearing and nursing are hard on a woman. He says, "In making him believe that he gets all the joy and that she gets all the suffering from the sexual life, she gives him a constant sense of guilt or at least indebtedness that makes him submissive. But the whole attitude is of course pure misrepresentation and fraud. For the very idea that the performance of a natural function should be painful and an occasion for 'self-sacrifice' is obvious nonsense. Healthy, honest women will confess that they enjoy every moment of motherhood."

TOO LATE

Two Scotchmen decided to become teetotalers, but MacGregor thought it would be best if they had one bottle of whisky to put in the cupboard, in case of illness.

After three days Sandy could bear it no longer, and he said, "MacGregor, I am ill."

"Too late," said MacGregor; "I was ill all day yesterday!"

Society Proceedings

ADAMS COUNTY

Meeting of Oct. 13, 1924

Dr. John L. Porter of Chicago was the guest of the Society on this day and began his program by conducting an Orthopedic Clinic at Blessing Hospital beginning about 10:00 A. M., examining some 20 patients presenting various types of deformities. A luncheon was served at 12:30 P. M. at Blessing Hospital in Dr. Porter's honor at which there was an attendance of 32, Dr. John A. Koch president of the staff at Blessing Hospital presiding. The evening meeting was held at the Chamber of Commerce with Dr. Warren Pearce in the chair. The total attendance at the clinic and meeting was 41, including 37 members.

Dr. Porter presented an interesting paper entitled, "The Differential Diagnosis of Spinal Diseases," which was illustrated by lantern slides. The paper was discussed by Dr. Shulian, Shawgo, A. H. Bitter, Koch, Williams and finally closed by Dr. Porter.

Dr. Pearce gave a brief report of what the Arrangement Committee for the Illinois State Medical Society meeting had accomplished to date. Dr. Cohen reported for the committee that had been appointed to investigate the desirability of forming a clinical association and stated that the committee felt that such an association should be organized. Dr. Cohen then passed a slip around for all those to sign who desired to affiliate themselves with such a clinical association. Dr. A. H. Bitter reported that the Quincy Telephone Exchange had refused to transfer physician's calls and stated that such a condition would prove a great source of inconvenience to the local physicians. He made a motion that a committee be appointed, with Dr. Swanberg as chairman, to investigate the desirability of forming a local telephone exchange for the use of physicians. Seconded and carried. The Chair appointed Drs. Swanberg, Koch and Jurgens on the committee. The Secretary read a communication from Dr. John Hund of Peoria, in regard to purchasing booklets for distribution among the laity. It was moved, seconded, and carried that the Secretary write to Dr. Hund that the Society did not wish to purchase any copies at this time. The Secretary read al etter from the Chairman of the Legislative Committee of the Illinois State Medical Society pertaining to the candidacy of Senator Gray of Coatsburg. It was moved that the letter be placed on file. A motion for adjournment was then in order and the meeting adjourned about 10:45 P. M.

HAROLD SWANBERG, M. D.,
Secretary.

CARROLL COUNTY

The Carroll County Medical Society held its fall meeting at the parlors of the Savanna Public Library, Monday, September 22. The session was called to order by President Alexander Gray; members present seventeen; visiting doctors, ten; nurses and visiting ladies, seven.

Minutes of the previous meeting read and approved.

The first on the program was a paper by Dr. Melugin of Thomson on "Reminiscences." He spoke of his recollections of the country doctor of his boyhood days, then of his own experience as a physician for over forty-five years in one locality and the great improvement that medical science had made in the last half century.

Dr. Hendricks of Lanark read a very interesting and instructive paper on "Rheumatic Endocarditis in Childhood." The paper was freely discussed by those present.

Dr. Edward Ochsner of Chicago presented a paper on "Chronic Fatigue Intoxication." This condition the doctor has been studying and experimenting with for many years. He said it is a disease tha thas been much neglected and poorly understood and has been a stumbling block to both medicine and surgery as it resembles many other conditions but when recognized and properly treated the patient will not fall in the hands of the charlatan.

No further business, the meeting adjourned.

MARY A. SAGNER,
Secretary.

COOK COUNTY

CHICAGO MEDICAL SOCIETY

Meeting of October 22, 1924

Causation and Treatment of Mental Disorders. Illustrated with Lantern Slides.
Henry A. Cotton, New Jersey State Hospital, Trenton, N. J.

Discussion:
Archibald Church and H. I. Davis.

Meeting of October 29, 1924

DIAGNOSTIC CLINIC

George W. Crile .....Surgical Subject
Cleveland, Ohio.

David Riesman.....The Acute Abdomen
Philadelphia, Pa.

Frank H. Lahey.....The Thyroid
Boston, Mass.

C. Macfie Campbell .....Psychiatric Subject
Boston, Mass.

CHICAGO LARYNGOLOGICAL AND OTOLOGICAL SOCIETY

Meeting of Nov. 5, 1923, Concluded

Clinically it is frequently desired to secure permanent volume changes in nasal capacity. One of the persistent symptoms of a continued rhinitis is a weakening in the tonicity of the vessels of the turbinates resulting in a fluctuating, or more or less persistent, mass obstructing breathing. The discussion pointed out how this hypitonicity may be eliminated by copying physiological means of constriction.

DR. A. J. CARLSON said that in the discussion of this physiological paper where every step had been proved he was grieved that some of the gentlemen had talked too lightly of matters of theory as if they were demonstrated facts. He wished to know what the speakers or anyone else had done to show that the pathological conditions described were due to focal reflexes, and thought they should talk with more hesitation until this had been done. If we keep repeating an hypothesis often enough some of us think the hypothesis is a demonstrated fact.

and the "urge" to replace theory by demonstrated fact is lost.

Dr. J. Gordon Wilson asked Dr. Carlson if it were not the case that we could have in the venous channel of the nose a local reaction of dilatation or constriction brought about through changes in the blood circulating there.

Dr. Carlson replied that this was true under certain conditions. That fact and the proof that that kind of reaction is involved in any one of the phenomena described by Dr. Tatum was certainly taking for granted many things that have not been proven. He believed that the gentlemen had assumed too much, that they could hypnotize themselves and that if they repeated this long enough they would think it had been proven.

Dr. Norval H. Pierce said there was no doubt that those who had discussed the paper were not physiologists. There is a good deal of loose thinking even among physiologists, but medical men had to think, they had to attempt to reason in their work, especially if the physiologists have been so dilatory in their work as not to have made all things clear.

Dr. Tatum (in closing) said in regard to the pathology of the nose that he would make a parallel to inflammation elsewhere. It is well established, he thought, that inflamed tissue involves blood vessels which are relatively irresponsive to vasoconstrictor agencies. He was not sure that these reflexes he had described could be elicited equally well in pathological conditions and he would not say that the pathology might not alter the responsitivity.

In regard to the negative pressure, that seemed logical and he would be glad to try it out. He had not used positive pressure to any extent, using very slight positive pressure only.

Regarding the reflex action, Dr. Tatum said that this method of plethysmographing a viscus is the most sensitive of any he had had the good fortune to try. It is easily established and exceedingly sensitive. In his hands, in animals that were anesthetized, he obtained no response after section of the cervical sympathetics, indicating a necessary nervous reflex. Of course, these animals were abnormal when they were anesthetized and what they would have done had they been conscious and normal he did not know.

Dr. Tatum said he had thought about the alternate changes a good deal and believed that some might be a nervous affair. One individual had reported to him after he had heard of this work that he had tried partial asphyxia because he was subject to intumescent rhinitis. He tried it at night and obtained relief for a considerable length of time.

In regard to the question pertaining to the effects of want of air after one had held his breath for a time, Dr. Tatum said this was not immediately evident. The increased patency was not evident until after the lungs were fairly well ventilated again. It was his habit to breathe normally for several breaths, until he did not feel air hunger and was not asphyxiated. Three or four breaths would usually suffice, after which objective or subjective measurements are safely made. If he breathed harder and respired a greater volume of air it was difficult to compare the resistances, for obviously resistance is a function of both rate-volume of air flow and of diameter of passage.

CHICAGO OPHTHALMOLOGICAL SOCIETY

November 19, 1923

Dr. Robert von der Heydt, President

CHRONIC ANGIOSPASM OF PALPEBRAL ARTERY

Dr. George F. Suker presented a young who, ever since she could remember, had a "linear" twitching of the right lower lid. She is unconscious of it, and upon close examination one finds a spasm of the inferior palpebral artery there localized, about 3 cm. in length. He had tried everything to check it, but had not succeeded. The only thing he thought would answer is ligation or excision of the vessel. However, the lesion is such a minor one that this is not worth while. The case is of interest on account of its extreme rarity. He had made a diagnosis of chronic angiospasm. What the etiology is he is unable to ascertain. Patient is healthy. Her personal and family histories are good. She is not neurotic or hysteric. She is blemish free, and he exhibited her to show anatomic rarity.

LIPEMIA RETINALIS

Dr. I. J. Muskat read a paper on this subject:

DISCUSSION

Dr. George F. Suker said that the discovery of lipemia retinalis was always accidental. There was no case on record in which vision, aside from the usual diabetic fundus lesions that might arise, had been reduced. Vision was generally normal. Whether it is true fat, or allied to the lipoids remained to be seen. The lipemia lasted but a few weeks, when the entire retina returned to its normal appearance. During the vessel changes, the adjacent retina was not implicated. No vessel pulsations were seen during the attacks of lipemia.

The prognosis had been considered extremely serious, much more so than the characteristic change of so-called diabetic retinitis. That this condition did not more frequently occur was rather strange. This was the first case of lipemic retinalis the speaker had discovered in his service at Cook County Hospital, though diabetic cases were quite numerous. According to the literature, one got similar cases with alcoholism and certain types of malnutrition, even in scurvy, but whether there was a true relationship he did not know. One peculiarity of this lipemia was that the substance did not give the characteristic stain with osmic acid.

Dr. Harry S. Gradle asked Dr. Muskat whether he had paid any attention to the tension of the eyeball in this condition, as in some forms of diabetes it was very important. Hertel, in 1912, in speaking of diabetic coma, described the eyeball as soft and mushy, so soft that tension could not be recorded. Such a hypotonicity occurred only in diabetic coma, but it was not necessarily an accompaniment of it, and it would be interesting to know whether there was any variation in the tension of the eyeball during the time the lipemia was observed.

Dr. Charles G. Darling stated that some ten years ago he reported a case similar to the one narrated. At that time there had been only 8 cases reported, with only one previous American case. The tonometer had just come out then, and they were interested in taking the tension of the eye. The man lived six weeks after the condition was discovered, and the tension remained normal all the time. In this case the patient's retina remained the same under dietary treatment. He did not know the history of the subsequent cases reported, but up to that time one case was reported in London in which the patient had this condition for four weeks and it cleared up. He did not have diabetes. He had 8 per cent of fat in the blood. The vessels, as a rule, looked pink where they curved up from the disc and became whiter toward the termination of the vessel. The less blood there was in the vessel, and the smaller the vessel, the whiter it was. In the case reported tonight, when first seen, the blood vessels were much whiter than in the illustration from the article that came out in September in the Johns Hopkins Bulletin. These vessels rapidly became more normal in color. Most of the patients who had this condition had been young individuals. Very few had lipemic retinitis after the age of forty.

Dr. Suker said he did not know whether Dr. Muskat took the tension or not, but he took it with the finger and found it was normal. At the Cook County Hospital the tension of the eyeball was taken in the majority of cases with coma.

OPHTHALMOPLEGIA IN LUETIC BASILAR MENINGITIS

Dr. A. H. Pember reported the case and said there were three similar cases admitted to Cook County Hospital in one week:

DISCUSSION

Dr. George F. Suker said that the point of interest was the homonymous hemianopsia in addition to ophthalmoplegia ex-

terna, combined with a pseudo Argyll Robertson pupil. He said it must be a dual lesion, one central and the other peripheral, to give the patient homonymous hemianopsia, which was improving to a certain extent, and the ophthalmoplegia externa. The chances were that the homonymous hemianopsia was due to a luetic process of optic atrophy, and the ophthalmoplegia was due to a nuclear paralysis, not a complete ophthalmoplegia externa and interna, because the superior oblique was somewhat active.

He believed syphilis was the primary cause of the optic atrophy, because one could see an incipient inflammatory condition of the disc edges. The spirochete had been isolated in several instances along the nerve tract, showing that the optic atrophy was not an ascending but a descending process. This held true from a clinical standpoint very remarkably in this man. The important thing was the homonymous hemianopsia which was synchronous in the two eyes; he had previously the same condition in his right eye that he now had in the left. In beginning tabes, even in paresis, the incipient atrophy might manifest itself a partial hemianopsia, usually in the upper outer temporal field, long before the general symptoms. As to the prognosis or final outcome in this case, he predicted that it would lead to a paretic dementia.

Dr. Jacob Lifschutz wondered if this case could not be explained on the ground that the lesion was in the visual area on one side in the brain, and also in the nuclei of the muscles on the left side. He did not see why this could not be the case where one had two lesions, one peripheral, and one nuclear. Possibly the brain itself was involved, or the nuclei of the muscles in the visual area.

Dr. Suker maintained duality of the lesions because there is homonymous hemianopsia, which developed in the right eye and then in the left. If it were a central lesion, the patient would have had a symmetric hemianopsia in the two eyes. There mere fact that it was improving was an important point, because central occipital lobe lesions giving homonymous hemianopsia on a syphiliic basis very seldom markedly improved. It was only the peripheral lesion in syphilis which had a tendency to recuperate rapidly. Central lesions were longer in recovering, if ever, to complete restoration. He did not think this individual would recover, and what was more, in a central lesion there were no manifestations in such a short time of optic atrophy at the periphery; therefore, the lesion was between the eye and the chiasm, and not back in the primary centers or in cuneus lobe. If it were in the latter it would be symmetric.

SEVERE BURN OF UPPER LID

Dr. Robert von der Heydt showed a young man, whom he presented to the Society eleven and a half years ago. At that time the patient was injured by severe burns of the body, face and eyes. He was carrying a pail of nitric acid in the composing room of a newspaper, and fell into the nitric acid, and he sustained, besides other burns, a severe burn of the upper lid, which resulted in an ectropion, to the extent that the brow and lid hairs were bound together. There was palpebral conjunctive which showed to the extent of a dime. He put in a Wolfe graft, and six weeks later he showed the patient to the Society. He now exhibited the case to show the perfect result obtained.

DISCUSSION

Dr. Suker congratulated Dr. Von de Heydt on the excellent result he had obtained in this case. The reason he obtained such a result was that he did not use a genuine thick Wolfe graft, but a modified Wolfe graft a la Thiersch. A thick graft, which takes in the corium, is apt to shrink and give trouble. A graft taken from the upper layers of the skin will do very nicely, and give a result such as Dr. Von der Heydt obtained in his case.

OPERATION FOR SENILE CATARACT

Dr. Harry W. Woodruff, Joliet, Illinois, presented a patient who was admitted to the Infirmary May 24, 1921, at the age of 43, with senile cataracts in both eyes. Vision in the right eye was 20/50, and in the left eye, with the cataract almost mature, 10/200. Colonel Smith operated his left eye by the intracapsular method. There were no complications according to the record. Dr. Fisher saw this case with the other cases operated by Colonel Smith. At the time he left the Infirmary, the record showed his vision to have been 20/50. Dr. Fisher had him tested and found his vision was 20/20. His vision now in the eye operated on is 20/20 with +12.

Patient presented himself again in September last for operation on his right eye. This operation was performed October 1st of this year. The capsulotomy method was used, and simple extraction was performed with a sliding conjunctival flap; eserin was used, and recovery was uneventful. A needling operation was performed November 12. His vision in the right eye with +11, with cylinder, is 20/15.

The particular point to emphasize in showing this case is that one eye was operated on by the most distinguished cataract operator in the world. The visual result was normal. Attention is called to the fact that the patient is a comparatively young man, 43 years of age, at the time of the first operation. Authorities including Colonel Smith himself call attention to the respective ages at which the intracapsular operation is most apt to be successful.

Many ophthalmologists have examined this case, mostly with magnification and illumination, and have seen in the drawn up pupil the presence of a membrane extending from the lower border of the pupil to the corneal wound, with adhesions of the iris to this membrane, pigment showing, and also adhesions of the iris to the corneal wound. Notwithstanding this membrane which partially fills the pupil, particularly the central portion of the pupil, he has remarkably good vision, and it is due to the fact that there are clear spaces on the margins of the membrane.

A point to be emphasized is, that one should not allow his enthusiasm for certain particular methods of operating to cloud his judgment. Of course, Colonel Smith was in this country for the purpost of demonstrating a particular operation, and it is not with the idea of criticizing Colonel Smith as an operator, but to call the attention of the Society to the point that there are certain restrictions. The speaker believes that men of the age of this patient or younger, with cataracts coming under the classification of senile, should not be operated by the intracapsular method.

In this particular individual, the opportunity afforded itself of showing the results with the two methods of extraction. The visual results are practically the same so far as testing with the best types show, but the visual results must be better in an eye with a physiologic pupil than in one that is immobile and has a large coloboma in the iris. He also emphasized the fact that one can with almost certain safety perform a simple extraction without the danger of prolapse of the iris, which is the bugbear in simple extraction, if one use

the sliding conjunctival flap, sometimes called the "Van Lint flap," bringing down a flap of conjunctiva and placing the sutures at an angle; so when the flap is drawn down over the cornea it is on somewhat of a tension, acting as a splint, thereby holding the corneal flap well down. The ordinary conjunctival flap is not very much of a protection against prolapse of the iris, if any, but the sliding conjunctival flap is a very positive and definite protection.

DISCUSSION

Dr. William A. Fisher, in referring to the case operated by Colonel Smith and reported by Dr. Woodruff, said that he only brought the patient to the Society on a previous occasion because his vision was 20/20. This case would have been rejected by Colonel Smith if he was operating for statistics, but we all knew he did not reject any. This case was not one for an amateur to remove the lens in capsule. The amateur should select patients sixty years of age, or over, because the zonule is hard to break if the subject is young. There was no objection to an expert operating at 43, and there was no objection to removing lenses and leaving a round pupil. The only reason for an iridectomy is to prevent prolapse of the iris, and this can be prevented, or the percentage reduced, by a small peripheral iridectomy (Hess). A round pupil, such as Dr. Woodruff presented, was desirable if iris prolapse was not more frequent than with iridectomy.

The membrane that Dr. Woodruff spoke about in the upper edge of the wound in Colonel Smith's case was undoubtedly a burst capsule. If the capsule burst in the upright delivery it fell into the vitreous, but if the zonule broke below and the lens tumbled, and the capsule ruptured, it was found hanging in the wound and could be removed. In this case, there was a burst capsule which was removed with forceps, but a piece was left in the wound. The operation in this case by Colonel Smith, even though the patient was only 43, was attended with a perfect result—no postoperative inflammation and vision 20/20.

Dr. Woodruff stated that although Dr. Fisher said Colonel Smith could operate on any eye at any age by the intracapsular method, it was a question whether Colonel Smith should operate on every eye at any age. It was quite generally conceded that age does make a difference regarding the particular method that is used. He mention an article by Dr. Dorland Smith, of Bridgeport, Connecticut, a year ago, in which he (Dr. Smith) attempted to classify the various cataracts. Smith had made a pilgrimage to India and did the Smith-Indian operation, but he attempted to classify the various kinds of cataracts and also the various ages at which the intracapsular operation was better performed or better not performed. He believed in the last analysis of this subject, it would be shown that it would be more nearly the correct opinion to operate on eyes at different ages by different methods, as the lens capsule was thicker and more firm at certain ages, as well as the suspensory ligament, and it was not reasonable to suppose that one particular operation should be the procedure for any age.

LYMPHOSARCOMA OF LID

Dr. Jacob Lifschutz presented a man, 40 years of age, first seen on October 19, 1923. Patient stated that he had never had any previous eye trouble until four months before he came to the clinic, at which time he noticed a growth on the inside of the left upper lid, causing drooping of the lid and irritation of the eyeball. No history of disease of the eye could be obtained, nor of irritation, trauma, or growth. His blood Wassermann was negative.

Examination of the eye showed the reflexes, motility and tension normal. There was nothing in the interior of the eye. His vision is 20/40 in the right eye and 20/20 in the left. Examination revealed a tumor quite vascular and very well defined extending along the horizontal meridian of the upper lid, beginning from the lower margin of the tarsus, but not including it, all the way down to the retrotarsal fold. The tumor is very hard and of the consistency of cartilage. He took out a vertical piece for section. There is no infiltration anywhere beyond this region; there are no palpable glands, and altogether there are no symptoms which would indicate malignancy. Examination of a slide by Dr. Lane showed no tissue on which one could make a diagnosis. There are several rows of epithelium which have undergone mucoid degeneration. There are some newly formed vessels, plasma cells, and a great real of infiltration of round cells. The probable diagnosis lies between a granulation tissue tumor, due to a reaction to chronic irritation, and lymphosarcoma. The specimens do not show anything definite. One might have to remove the tumor and section to find out what the growth really is.

DISCUSSION

Dr. Harry S. Gradle asked Dr. Lifschutz if, in examining these specimens, he considered the possibility of circumscribed conjunctivitis hypertrophica intracellularis, which was decribed some years ago by Paescheff. This is usually not circumscribed, but a diffuse condition involving the entire conjunctiva.

Dr. Lifschutz said he had made a preliminery report. Sections were removed and stained, and he proposed to present the case later with slides. The only way to make an accurate diagnosis was to make a microscopic examination. So far the sections did not show anything. He took a vertical section from a tumor mass.

Dr. Von der Heydt asked whether there was anything connected with the case which made Dr. Lifschutz think of sarcoma.

Dr. Lifschutz replied that what made him think of sarcoma was the rapidity of the growth, and the great number of mononuclear leukocytes. He had never seen a case like this. In view of the fact that the man received no injury and the tumor started to grow and spontaneously attained its present size, the probability was it might be a malignant growth. He did not know whether it was a wise thing or not to remove a section. It might have been a mistake, and yet this section was negative.

Dr. Von der Heydt said that a sarcoma of this size might produce a mild Wassermann reaction.

Dr. Lifschutz asked the members as to the advisability of removing sections of such cases for examination.

Dr. Suker replied that from a general surgical standpoint it was not advisable to make sections for staining unless one had a frozen section and determined it then and there. This was Billroth's general surgical principle and it held true today. Any tumor one wanted to examine should be examined by the frozen method, and one should decide to remove a part of it, if not remove it entirely, and then make a section. That was the better plan.

TUMOR OF THE UPPER LID

Dr. Charles F. Burkhardt, Effingham, Illinois, reported the case of a patient with a tumor, that he saw a year ago. The reason for reporting the tumor was because of its rarity. The man complained of something which he said was like a scum over one eye. He kept rubbing his eye, but the scum would come back. The speaker everted the upper lid thinking there might be something under the lid creating irritation. He found under the upper lid a small tumor mass, about five millimeters in diameter, lying closely in contact with the conjunctiva of the lid. He everted the periphery of the disc shaped mass, which was attached

at the center to the lid by a pedicle one millimeter in thickness. He noticed it was very movable, and the lower surface of the tumor was concave in conformity to the eyeball on account of the lid action. Assuming that there was perhaps a small pedicle attaching the tumor to the lid proper, he dropped a little cocain into the eye, and then with a very small snare wire, snared the growth off, and the pedicle was not more than a millimeter in diameter. Recovery was uneventful.

DISCUSSION

Dr. Hiram J. Smith said he had not seen a tumor like the one reported by Dr. Burkhardt, but recently he saw a growth of the conjunctiva following an operation, which resembled in external appearance and on microscopic examination the tumor mentioned. This tumor was pedunculated and came from a stitch. It was about the size of a shoe button when removed, and how much larger it would have grown he did not know. Microscopic examination showed it to be a granuloma.

INTRA-OR EXTRAOCULAR FOREIGN BODY?

Dr. William A. Fisher reported the following case and presented the patient, because paper of the evening was magnet operations: H. Morgan, aged 18, was injured September 16, 1923 by striking a piece of metal with a hammer. He saw the patient one week later, and found the lens partially opaque, quite the same as at this time, and vision 4/200. The eye looked as though a foreign body might have penetrated it, and an X-ray was made by Wheeler, Sinclair, Cotchy and Wiese with a negative result. They applied the giant magnet after getting the negative X-ray report, but this was also negative.

Another X-ray was made a few days later for the insurance company (by Potter). This X-ray located the foreign body in the eyeball. They came to him again with this information, and in consultation with Dr. Faith, another X-ray was made by Hubeny and the foreign body located outside of the sclera. The magnet was again used but with a negative result. Then an effort was made to remove the foreign body through the conjunctiva at the temporal side, which would have ben a very difficult feat to perform, but would have been very satisfactory to the patient if the foreign body had been removed. The eye is now quiet, and the pupil is active; there are no adhesions of the iris, same opacity as at first examination and vision is 4/200. The only evidence of injury he has is the opacity of the lens and the redness of the conjunctiva at the temporal side, where an effort was made to remove the foreign body.

He is 18 years old and the lens may become absorbed. It is now two months since the injury, and no trouble need be expected from infection, and if the foreign body was outside of the eyeball, as he fully believed it was, no trouble need be expected from it. While X-ray pictures were very valuable and appreciated, this case proved that one could not always rely upon an X-ray picture even though made by experts as in this case. The only question regarding this case was whether or not an opening should be made in the eyeball, and an attempt made to remove the foreign body, which one expert believed to be in the eyeball and another outside of it. He did not consider this justifiable.

DISCUSSION

Dr. Thomas Faith said he saw the case reported by Dr. Fisher, and the important question arose whether an attempt should be made to search for the foreign body through an opening in the sclera. One X-ray picture was negative, while another localized the foreign body just inside the sclera, and a third one just outside the sclera. At the present time he thought there was no justification in opening the sclera for the removal of the foreign body, as it was not known whether it was in the eye or not. Personally he tried to locate the foreign body outside of the eye without success. One should remember in this connection that some of these pieces of steel were so situated that it was impossible for them to attract the magnet, even though one might feel that the foreign body was inside the eye.

Dr. Woodruff asked Dr. Fisher if he had accurate localization charts presented to him by the X-ray operators. One of the most satisfactory cases he had had to deal with was one where the foreign body in the eye had been localized by a man who knew how to localize it, and who furnished one with a chart, and it was very rarely that the foreign body did not lie exactly where the chart indicated. He referred to the work of Dr. H. P. Wells who had done his X-ray work. It seemed to him that if a young man had the power to focus his other eye and to hold it perfectly quiet, so that two pictures could be taken without any movement of the eye, and the correct mathematical computation made, it was about as accurate a proposition as one could have.

Dr. G. Henry Mundt agreed with Dr. Woodruff that localization of foreign bodies was a very valuable adjunct to removal of foreign bodies, and said that it had been a satisfactory method to him for the location of foreign bodies in the globe or orbit. He thought in some cases the easiest method was the use of the scissor extension of the magnet. He used this method for the first time about a year and a half ago, in the case of a foreign body that penetrated the globe. It was quite large and he had considerable difficulty in getting the foreign body out, until he went down on it with scissors and by scissors extension removed it. He believed this was an admirable method of removing a foreign body when it was in the orbit. He read this two years ago in an article by Dr. Edward Jackson.

Dr. Darling said it was a question whether a foreign body in the orbit should be left there, or cut down on with scissors and removed if it had gone through the eye. In penetrating foreign bodies that went through the sclera into the orbit (unless the lens was greatly swollen, setting up an iritis), the eye quieted down quickly and usually caused little subsequent trouble.

Dr. Fisher, in closing and replying to Dr. Woodruff, said he had had X-ray pictures by Drs. Potter and Hubeny, one picture showing the foreign body inside the sclera, and the other showing it outside. He did not question the work of either one of these gentlemen because they were expert, but one of them must be wrong.

Dr. Mundt suggested a method of removing a foreign body when outside of the sclera, which might have succeeded in this case. Dr. Darling suggested that foreign bodies outside of the sclera clear up rapidly. This eye was clear now, except where one attempt was made to remove the foreign body from under the conjunctiva.

There was no question of a foreign body being present in the eye or on the outside of it, but he was having trouble, and his vision is 4/200. When a foreign body has passed through the lens, it was far safer to dilate the pupil and remove the foreign body through the anterior chamber. No matter where the foreign body was localized, he would not think of going back of the lens to remove it.

IRIDOCYCLITIS AND NEURORETINITIS WITH ETHMOIDITIS

Dr. T. D. Allen presented the case of a boy, 16 years of age, who just before leaving England for

the United States in August, 1922, became ill with an intestinal condition. On coming to Chicago, he was placed in the Presbyterian Hospital for observation and treatment.

The condition was essentially an ulcerative colitis, associated with marked fermentation, and with superficial erosions of the mucosa of the rectum and probably of other parts of the bowel. He passed large amounts of blood and pus; and had an accompanying daily rise of temperature to 100-102°. He had had for many years a nasal discharge. Part of his treatment consisted in irrigation of the left antrum which had been found cloudy.

A year later he was again taken to the hospital because of a recurrence. After he had been there for several weeks, during which time the left antrum was again irrigated, he developed an acute conjunctivitis and an eye wash was ordered. Three days later the tonsils were removed. Seven days after this was done, the eye became painful and photophobia developed; he was seen the following day. At that time no ciliary tenderness but ciliary injection was present, and the left iris was slightly discolored. Hot applications, a sweat, atropin and an eye shade were ordered. Salicylates were not ordered because of fear of upsetting the bowel. Five days later they were started, 15 gr. t.i.d. Five days after the onset of the iritis, as the patient became steadily worse, posterior snyechiae and precipitates on the back of the cornea of the left eye having formed, and the condition beginning in the right eye, Dr. William H. Wilder saw him, confirmed the diagnosis of iridocyclitis, and suggested 5 per cent dionin and foreign protein.

Through fear of upsetting the bowels, the foreign protein was not insisted upon and not used until the ninth day after the onset of the iritis. At that time the patient had a violent blepharospasm, so that the slightest light caused intense pain in the left eye and nearly as severe in the right. Consequently no fundus examination could be made, but it was ascertained that the pupils were not satisfactorily dilated and that there was moderate conjunctival edema. Again Dr. Wilder urged foreign protein.

A small dose of killed typhoid bacilli was given intravenously (about 20,000,000) on July 22. The chill was severe, and the temperature was 102°. The ocular reaction was gratifying; the photophobia and blepharospasm were markedly reduced, as were the ciliary injection and conjunctival edema. The bowel condition also improved in a very gratifying and unexpected manner.

Four days later a second dose (about double the first) was given. This time the temperature went to 102.6°. The condition of the eyes improved, so that it now became possible to use the ophthalmoscope. The right pupil was fairly well dilated; there were deposits on the back of the cornea and on the capsule of the lens; the vitreous seemed clear and the fundus normal. The left pupil was irregularly dilated, several posterior synechiae having formed; there were numerous deposits on the back of the cornea and front of the lens, so that details of the vitreous and fundus could not be obtained.

Two more doses of vaccine, each of about 60,000,000 bacilli, were given at 4 and 10 day intervals. with but slight chill and temperature of only 100 and 101°. The eyes gradually cleared. Unfortunately, as would appear later, no further attempt was made to view the fundi. He was discharged from the hospital September 5. On October 4th he reported at the dispensary. His vision was R. 20/50; L. 20/100. After homatropin instillation, the right pupil dilated evenly and normally but the left was irregular, being bound by several posterior synechiae, as at present. The right media seemed clear and the fundus normal, but to his surprise, in the left eye, seen through a slight haze (probably entirely due to the exudate on the lens capsule, as no vitreous opacities were seen), the optic disc was slightly swollen, the outlines blurred, and the vessels for some little distance from the disc were slightly swollen and tortuous (not in the plane of the retina); there was no hemorrhage or gross exudate, though the retina seemed slightly swollen.

He was immediately referred to the nose and throat department, where again a shadow was found in the region of the left antrum; the antrum was treated in the routine way, mucopus being found on irrigation. This was continued for five days, when he was discharged from the nose and throat department; but there was no change in the ocular condition; unless, possibly, the neuroretinitis had become worse. The dental report by Dr. Moorehead was that there were several cavities in the eeth but no abscesses.

He was again referred to the hospital, and the routine treatment prescribed, bed, hot applications, atropin, dark glasses, salicylates. A more thorough search was made in the nose. The nasal septum was straightened by Dr. Edwin McGinnis, and when this had been done, mucus was found coming from the region of the left ethmoid cells. The turbinate was fractured and the left ethmoid cells opened up widely. For the following few days there did not seem to be any change in the fundus, but shortly thereafter the swelling began to subside. He was discharged November 12. His vision now (November 19) was R. 20/50; L. 20/70. The swelling of the retina was still discernible, but was very much reduced. The form field was practically normal; also field for red. The green field was not taken. The blind spots were both enlarged, the right one and a half times normal, the left about three times normal. No other scotomas were found.

If we accept the theory that ulcerative colitis was an infectious condition, essentially secondary to some other focus in the body (as is arthritis and iridocyclitis), then we had reason to assume for purpose of discussion that this picture was a unity—a single problem whose solution would naturally lie in the discovery and removal of the primary focus. The antrum of Highmore often acted as a reservoir for the secretions or several nearby accessory sinuses. In this particular case, repeated drainage and treatment of the antrum failed to affect the colitis; and soon after such treatment, while

still in the hospital, the iridycyclitis developed. This would lead him to believe that the condition of the antrum had slight, if any, direct causative influence, and that probably the ethmoiditis had existed for many months.

If the improvement was permanent, it might be assumed that the ethmoiditis was the cause, if not of the origin, at least of the continuance of the pathologic picture. As the foreign protein injection was followed immediately by a rather remarkable reduction in symptoms, both of the intestinal and ocular conditions, it might have led him to abandon the hunt for the primary focus, had not the neuroretinitis been found. Whether the neuroretinitis existed at the time of the uveitis could not be stated definitely. He was inclined to think it did. The tonsillectomy was done a few days before the iridocyclitis developed. He had been told that cures following immediately after tonsillectomy were due to either removal of a focus, or to absorption of certain elements at the site of the wound, which acted as a foreign protein. In this instance neither was the removal followed by improvement of the colitis, nor was there a general reaction similar to that following the foreign protein given a few days later. Foreign protein treatment had a definite place in our armamentarium; but it should not cause us to relax one whit in our scientific endeavors to locate and eradicate the cause of a lesion.

DEDUCTIONS FROM 120 INTRAOCULAR STEEL OPERATIONS

Dr. Sydney Walker, Jr., said that the symptoms complained of varied in the extreme, from slight discomfort to severe pain. Subjectively, if the lens was uninjured, the complaint was slight, and in many cases there was none. But if complications had developed, such as slight hemorrhage into the vitreous, faint lens opacities, the symptoms were naturally more leading. To him the faintest trace of floaters in an eye which had been injured usually suggested a tentative diagmosis of intraocular steel.

The diagnosis was not always easy. Direct inspection some hours after the accident might fail to disclose any perforating wound, and the reaction present was often slight. In these cases the slit lamp and corneal microscope might disclose a faint perforation of the cornea, or of the lens. Further, small sharp particles at high speed often richocheted in a peculiar manner, and lodged posterior to the globe without perforating.

The complications which might develop were many and were a large factor in the ultimate outcome. Corneal scars were usually of little consequence; tears of the iris likewise. When the lens was injured we had a serious problem to meet. It was true that the resulting cataract could be extracted, but in the State of Illinois the aphakic eye in the hands of the Industrial Commission was looked upon as industrial blindness. A correcting lens according to the Supreme Court was held the same as a crutch. For this reason many of these cases were left with the cataract unoperated.

Enucleation was indicated in approximately 25 per cent. of all such cases. Industrial patients were handled differently from the average private case. When an eye was blind, inflamed, or should necessarily go through a long siege of inflammation, or when the wound was of large extent and involved the ciliary body, it was to the best interest of all concerned to enucleate. The reasons why such a course was followed were: that the patient was put back in his former earning capacity in a relatively short time, his appearance was better with a false eye than with a shrunken painful dangerous mass, and naturally the expense of a long drawn out temporary disability was less.

What was the future of the eye which had had intraocular steel removed? This depended to a great degree upon the site of the wound, and the complications which followed. As a general average, he could safely state that about 40 per cent. ended with useful to good vision. His cases extended only over a period of four years, approximately 30 each year, and he felt that time would tell the outcome in some eyes which he now claimed as good results.

The ease of removal of the steel depended to some degree upon the length of time elapsing since the injury. Further, in these cases the technic used was of some importance. He had used the Hirschberg hand magnet to the exclusion of all others, and had yet to fail where the foreign body was magnetic. In those cases in which the steel was in the vitreous, and they were the most difficult, he turned back a conjunctival flap over that portion of the ora serrata nearest the foreign body, incised the sclera in the long axis enough to admit the magnet point, entered to within 2 or 3 mm. of the steel, switched the current on and off several times in that position. Should this fail, which was not often the case, entrance was again made, attempting to nearly reach the body with the magnet tip, and the steel removed.

DISCUSSION

Dr. Hiram J. Smith said that detachment of the retina was the most serious complication he had had to deal with in these cases. Pathologic complications were frequent, especially hemorrhage into the vitreous and later organized exudate, which by its contraction was a frequent cause of detachment. A case now under observation had detachment from this cause a little over one year after the penetrating wound. Patient had had normal vision during the interval with glasses. Dr. Walker was right in saying that the ultimate disability could not be determined until a year or eighteen months later.

During 1921, 41 cases of penetrating wounds of the eyeball were seen. Nineteen cases had a foreign body present within the globe. Complications were as follows: Traumatic cataract, 19; chronic iridocyclitis, 4; hemorrhage into vitreous, 6; secondary glaucoma, 3; detachment of retina, 3; retinitis proliferans, 1; panophthalmitis, 1; infection does not occur as often as might be expected.

One case in which traumatic cataract occurred was

worthy of further mention. At the time of injury, no defect of cornea and no evidence of any intraocular injury was found on repeated examination under a mydriatic. Vision was 20/16. The patient complained of seeing specks and geometric figures before this eye. X-ray indicated a foreign body of one millimeter dimension outside the bulb. About six months later, a stellate, postcortical, lenticular opacity, centrally located, began to be visble, also siderosis. A second x-ray showed a foreign body in the vitreous, just back of the ciliary body, below, in the vertical meridian. This was removed with the magnet through scleral incision without accident. The eye remained quiet, but cataract progressed gradually to complete opacity with corresponding failure of vision. What was the pathogenesis of the cataract in this case, and why did it occur so long after injury? What part did the intraocular foreign body play in the production of the cataract?

Referring to Dr. Fisher's statement about the use of Haab magnet, he had never succeeded with it in cases where the Sweet hand magnet had failed. He was partial to the posterior route for removal of foreign bodies in the vitreous. He did not feel that Dr. Woodruff's experience was unusual. He had found x-ray localization check up quite accurately, and the foreign body was located with magnet, within two or three millimeters of localization shown by x-rays.

Dr. William A. Fisher. Twenty or more years ago, he imported the first Haab magnet and read a paper before the Society in which he reported 150 cases, which were published in the *Ophthalmic Record*. He spoke of this because the results at that time seemed to be about the same as he was getting now. The results then were good vision in 96 cases, that is, where vision could be improved and made good with glasses. When Dr. Walker spoke about the mattress suture or the conjunctival flap, he recalled that last year he saw Professor Barraquer in his clinic at Barcelona insert a conjunctival stitch in all of his cataract operations, but he tied the suture with two pairs of forceps. Tying a thread in the eye with the fingers was unpardonable as long as one could use two pairs of forceps so readily and not invite infection.

Clarence Loeb,
Corresponding Secretary.

KNOX, HENRY AND WARREN COUNTIES

The Fourth Annual Fall Meeting of Knox, Henry and Warren County Medical Societies was held in the Elks Club at Galesburg, Illinois, on Thursday, October 16th.

A number of the medical men spent a part of the morning on the golf course of the Country Club. An informal luncheon was held at the Elks Club at 12:30 P. M. After luncheon Dr. Joseph Mayo Tilden, President of Lombard College, addressed the societies on the subject of "Where Shall I Park My Car?" Following Dr. Tilden's address Dr. Isaac A. Abt of Chicago gave a paper with lantern slide demonstration on the subject, "Asthenic Children". The next paper was "Paroxysmal Tachycardia in Relation to Migraine" by Dr. Wm. A. Thomas of Chicago. The last paper of the afternoon was given by Dr. Verne C. Hunt of the Mayo Clinic, Rochester, Minn. His subject was "Surgery of the Lower Urinary Tract" with lantern slide demonstration. After Dr. Hunt's paper Dr. Wm. D. Chapman, Silvis, Ill., Councilman of the Fourth District of Illinois, spoke of the work of the Educational Committee of the State Medical Society.

The attendance at the meeting was good and many physicians of the Tri-County Organization and physicians from neighboring counties were present.

Respectfully,
Louis N. Tate, Sec'y.

Marriages

Joseph L. Bettag to Miss Isabella Anderson, both of Chicago, September 13.

Lodislav V. Capek, Oak Park, Ill., to Miss Dora Elizabeth Woodburn of Chicago, September 6.

Richard Cotter Gamble, Chicago, to Miss Vera Theresa Fusselman of Livingston, Mont., September 24.

Oscar Sidney Lenit, Chicago, to Miss Myrta L. Childers of Darlington, Wis., August 14.

Justin C. Williams to Miss Emily Margaret Hartmann, both of Chicago, September 18.

Claude Crossland Wood, Medora, Ill., to Miss Inez Fern Carr of Chicago, August 27.

Personals

Dr. Harry Jackson has been appointed assistant professor of surgery at Northwestern University Medical School, Chicago.

Dr. Herman N. Bundesen, commissioner of health, addressed the Nurses' Alumni Association of the Chicago Postgraduate Medical College and Hospital at the Morrison Hotel, October 13.

Dr. Arthur Dean Bevan, chairman of the Council of Medical Education and Hospitals, American Medical Association, gave an address at the laying of the cornerstones of the Todd Memorial Clinic and the Cancer Institute at the University of Minnesota, Minneapolis, October 1.

Dr. John L. Porter, Chicago, conducted an orthopedic clinic at Blessing Hospital, Quincy, October 13. A dinner was given in his honor at noon and in the evening Dr. Porter read a paper before the Adams County Medical Society at the

Chamber of Commerce Building, on "The Differential Diagnosis of Spinal Diseases."

The University of Chicago has set aside a tract of 9 acres, the two blocks west of Ellis avenue facing the Midway, to be devoted wholly to the new medical school. The buildings now on this tract will be removed in time, and the university will immediately spend $4,000,000 for hospitals, laboratories and teaching quarters, and eventually not less than $3,000,000 more. To endow the work to be housed in these buildings will call for $5,000,000 in the near future.

Dr. Benjamin H. Breakstone has resigned as Professor and Head of the Department of Surgery at the Chicago Medical School.

Dr. C. D. Center has been elected President of the City Planning Commission of Quincy. Dr. Center spoke at the Webster School on National Defense Test Day and also was one of the officials who reviewed the parade on that day.

Drs. Harold Swanberg, Walter Stevenson and Ralph McReynolds have been appointed on the Quincy Community Chest Committee.

Dr. Harry Jackson was appointed Assistant Professor of Surgery at a recent meeting of the Board of Trustees of Northwestern University.

Dr. Ralph H. Kuhns, a member of the Illinois Medical Society, formerly on the Resident Staff of the Michael Reese Hospital, Chicago, and on the faculty of Rush Medical College, Chicago, has been appointed to the faculty of the University of California Medical School, Department of Pediatrics, and to be Adjunct Pediatrist to the Mount Zion Hospital, San Francisco.

News Notes

—St. Ann's Hospital is planning a $250,000 addition.

—St. Elizabeth's Hospital will soon start the construction of a $225,000 nurses' home.

—The Augustana Home for the Aged, Seventy-Sixth and Stony Island Avenue, will soon begin the construction of a $150,000 building.

—Plans are being drawn for a new $500,000 nurses' home for Wesley Memorial Hospital, 2449 South Dearborn Street.

—An anonymous donor has given funds for the maintenance of a research fellowship in preventive medicine at the University of Chicago for two years.

—The superintendent of the Chicago Tuberculosis Institute states that the institute now maintains seventeen health centers and twenty-three public health nurses which are financed by the sale of Christmas seals.

—The city council of DeKalb has enacted an ordinance which prohibits traffic in intoxicating liquor for medicinal purposes, except when furnished directly by a physician to a patient in his care. No prescription for intoxicating liquor may be filed in that city unless, when compounded, the mixture shall be such as not to produce intoxication. The council of DeKalb has called on the federal and state authorities to revoke outstanding federal and state permits, and to discontinue the issue of further permits, authorizing the furnishing, possession and use of intoxicating liquors. The council of DeKalb also requests the federal and state authorities to discontinue the issue of prescription blanks for the prescribing of intoxicating liquors, contrary to the provisions of this ordinance. DeKalb physicians are protesting vigorously. They have engaged counsel, and appealed to the state association for support.

—At the request of Dr. Harold B. Wood, health director of the schools of Bloomington, the attorney general of Illinois handed down an opinion concerning the authority of health officers to exclude children from schools. He stated, it is reported, that the supreme court has frequently held that boards of health or school boards or city councils may exclude pupils temporarily from the public schools when it is necessary to prevent the spread of dangerously infectious or contagious diseases, and that a health officer may temporarily exclude a pupil from the school who refuses to submit to examination, providing he has reasonable grounds for believing that the pupil is affected with a contagious disease. Such action, however, should not be taken on mere suspicion. The attorney general said also that the authority of the city health officer to examine children for contagious disease depends on the provisions of the city health ordinance under which he may undertake to act while the school board may have independent authority under the general school law or a special charter. As a rule, the authority of such officials is concurrent and neither is paramount to the other.

—The West End Hospital has severed its connection with the Chicago Medical Schooi.

—The annual meeting of the Illinois Society for Mental Hygiene was held, October 17, at the Chicago Woman's Club, Fine Arts Building, Michigan avenue, Chicago.

—At the first regular meeting of the Chicago Pathological Society in the John Crerar Library, October 13, under the presidency of Dr. William F. Petersen, Dr. Alexander A. Maximow gave an address on "The Development of the Mammary Gland in Vitro," and Drs. R. H. Jaffe and Samuel A. Levinson on "The Effect of Hypercholesterinaemia on Experimental Tuberculosis of Rabbits."

—The fiftieth annual meeting of the Illinois Tuberculosis Association was held at Decatur, October 27-28, taking the place of the regular fall clinical meeting of the Macon County Medical Society. The Decatur Medical Society cooperated in the preparation of the program and in making local arrangements for the session. Among others, Dr. Mazyck P. Ravenel, department of preventive medicine, University of Missouri School of Medicine, addressed the meeting. Dr. H. Kennon Dunham, University of Cincinnati College of Medicine, held a tuberculosis clinic, and the Macon County Medical Society a surgical clinic at the Decatur and Macon County Hospital at the annual banquet and reception of the state tuberculosis society, held at the Orlando Hotel, October 27, Dr. Lewis C. Taylor, president of the Illinois State Medical Society was toastmaster.

—Armour and Company announce the addition of Parathyroid and Calcium Lactate Tablets. Each tablet contains 1/20 grain of pure Parathyroids and 2½ grains Calcium Lactate U. S. P. These tablets are packed in bottles of 100 and they are obtained from drug trade and dealers in physicians' supplies everywhere.

Scholarships on the Oliver-Rea Foundation for graduate study in Medicine are available at the New York Post-Graduate Medical School and Hospital. Inquiries should be addressed to the Dean, 301 East 20th Street, New York City.

The Chicago Council of Medical Women will meet throughout the year at the American College of Surgeons, 40 East Erie Street, on the fourth Tuesday of each month, from October to June, at 8 p. m. The theme of study throughout the year will be Hemorrhage as related to the various branches of medicine and surgery. The subject for special study for October will be "The Chemistry and Physiology of the Blood as related to Hemorrhage."

Deaths

Joseph R. Baker, Pittsburgh, Ill. licensed, Illinois, 1878); formerly mayor of Pittsburg and for many years county coroner; aged 74; died, September 15, at Marion.

Elijah Warren Boyles, Flora, Ill.; Rush Medical College, Chicago, 1862; Civil War veteran; aged 88; died June 4, of pulmonary edema and senility.

George S. Calvert, Chicago; Northwestern Medical College, St. Joseph, Mo., 1885; aged 73; died, October 1, of bronchitis.

William Henry Fields, Cairo, Ill.; Howard University School of Medicine, Washington, D. C., 1890; member of the Illinois State Medical Society; aged 58; died, September 29, of uremia.

Cyrus T. Foster, Rock Island, Ill.; Keokuk (Iowa) Medical College, 1897; member of the Illinois State Medical Society; formerly county and city physician; aged 53; on the staff of St. Anthony's Hospital, where he died, October 9, of wounds received when shot by bandits.

James I. Hale, Anna, Ill.; Chicago Medical College, 1874; proprietor of the Hale Sanatorium, where he died, October 3, aged 80, of angina pectoris.

Arthur Elmer Kramer, Chicago; St. Louis (Mo.) University of School of Medicine, 1921; aged 31; died, September 17, at St. Luke's Hospital, following an operation for a tumor of the brain.

Orville Winthrop McMichael, Chicago; Hahnemann Medical College and Hospital, Chicago, 1890; a member of the staff of the Columbus Hospital, where he died, October 2, aged 57, following amputation of his leg for tuberculosis of the bone.

Charles M. Noble, Bloomington, Ill.; Jefferson Medical College of Philadelphia, 1876; president of the Fairview Sanatorium, Normal; aged 73; died, September 16.

William Prescott, Dallas City, Ill.; College of Physicians and Surgeons, Keokuk, Iowa, 1878; Civil War veteran; aged 85; died, September 23, of senility.

John Young Shamel, Gibson City, Ill.; University of Pennsylvania School of Medicine, Philadelphia, 1894; formerly president of the board of education; aged 53; died, September 30, as the result of a fall from the third floor of the Illinois Central Hospital, Chicago.

William O. Smith, Crossville, Ill.; Eclectic Medical Institute, Cincinnati, 1878; aged 74; died, August 29, of chronic nephritis.

George Washington Steely, Louisville, Ill.; St. Louis (Mo.) College of Physicians and Surgeons, 1899; served in the M. C., U. S. Army, with the rank of captain, during the World War; aged 49; died, September 9, at the Olney Sanitarium, Olney, of peritonitis, following an appendectomy.

1924

The
The
s re-

inois,
many
15, at

edical
d 88;

edical
ctober

Uni-
1890;
aged

Iowa)
State
ician;
where
not by

ollege,
ere he

(Mo.)
; died,
ng an

Hahne-
890; a
where
ion of

fferson
of the
, Sep-

ge of
; Civil
enility.
versity
lelphia,
cation;
a fall
ospital,

Medical
ust 29,

l.; St.
rgeons,
ne rank
; died,
of peri-